DOCUMENT RESUME

ED 166 590 CG 013 199

AUTHOR	Reardon, Robert; And Others
TITLE	A Self-Directed Career Planning Program for the Visually Disabled. Final Report.
SPONS AGENCY	Department of Health, Education, and Welfare, Washington, D.C.
REPORT NO	554AH70125
PUB DATE	15 Sep 78
GRANT	G00C77C0067
NOTE	238p.; Some pages are of marginal legibility
EDRS PRICE	MF-$0.83 HC-$12.71 Plus Postage.
DESCRIPTORS	*Career Planning; *College Students; Decision Making Skills; Higher Education; Job Skills; Learning Modules; *Occupational Information; Self Evaluation; *Self Help Programs; *Skill Development; *Visually Handicapped
IDENTIFIERS	*Florida State University

ABSTRACT

These materials represent the Curricular-Career Information Service (CCIS) at Florida State University, a self-directed career planning program especially for the visually disabled, designed to: (1) increase the amount of occupational information available to blind people; (2) provide resources for visually disabled students to increase their decision-making skills; (3) provide visually disabled students the opportunity for self-assessment and help them identify occupations for further exploration; and (4) provide opportunities and resources for learning employability skills. This report is a description of the project's purposes, goals, objectives, methods, evaluation and problems. Also included are suggestions for modifying a career center to increase accessibility for the blind, and for future research within the area. (Author)

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a SELF DIRECTED CAREER PLANNING PROGRAM

for the

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CG013199

A SELF-DIRECTED CAREER PLANNING PROGRAM

FOR THE VISUALLY DISABLED

FINAL REPORT

A MANUAL FOR REPLICABILITY

September 15, 1978

Submitted by:

Robert Reardon, Ph.D., Principal Investigator

Paul White, Project Coordinator

Arthur Carlson, Materials Development Coordinator

Sandra Barker, Ph.D., Evaluation Coordinator

Foreword by:

Donn Brolin, Ph.D.

University of Missouri

Columbia, Missouri

The Florida State University, Tallahassee, Florida 32306

CAREER EDUCATION PROGRAM PROJECT PERFORMANCE REPORT

1. PROJECT NUMBER: 554AH70125

2. GRANT NUMBER: G0077C0067

3. NATURE OF REPORT: Final Report

4. PROJECT TITLE: A Self-Directed Career Planning Program for the Visually Disabled

5. PERIOD COVERED BY THIS REPORT: 10/1/77-9/29/78

6. CATEGORY OF PROJECT: Populations--The Handicapped

7. NAME OF PROJECT DIRECTOR: Robert Reardon, Ph.D.

8. NAME AND ADDRESS OF GRANTEE:

Florida State University
Counseling, Health and Rehabilitation
215 Stone Building
Tallahassee, Florida 32306
(904)-644-3839

Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Title IX of the Education Amendments of 1972, Public Law 92-318, states: "No person in the United States shall, on the basis of sex, be excluded from participation in, denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance." Therefore, career education projects supported under Sections 402 and 406 of the Education Amendments of 1974, like every other program or activity receiving financial assistance from the U.S. Department of Health, Education, and Welfare must be operated in compliance with these laws.

The material in this report was prepared pursuant to a grant from the Office of Education, U.S. Department of Health, Education, and Welfare. However, points of view or opinions expressed do not necessarily represent policies or positions of the Office of Education.

A cassette tape showing both large type and the clear plastic braille labels.

a SELF DIRECTED CAREER PLANNING PROGRAM

VISUALLY DISABLED

ABSTRACT

The purpose of this career education for the handicapped project awarded by the U.S. Office of Education to the Curricular-Career Information Service (CCIS) of Florida State University was to demonstrate a self-directed career planning program for the visually disabled. CCIS is an outreach self-help oriented, multimedia-based career exploration program. The underlying assumption of CCIS is that given the proper resources, people can make personally meaningful decisions relating to the world of work, their own skills, aptitudes and interests, and how to go about getting employed. The goal of the grant project was to translate the values, purposes, and resources of CCIS into formats that could be easily used by visually impaired persons. Our objectives were: (1) to increase the amount of occupational information available to visually disabled people; (2) to provide resources for visually disabled students to increase their decision-making skills; (3) to provide visually disabled students the opportunity for self-assessment and to help them identify occupations or fields of study for further exploration; and (4) to provide opportunities and resources for learning employability skills.

Our most difficult task was adapting John Holland's Self-Directed Search (SDS), used in CCIS, into a format that could be taken, scored, and interpreted by blind students without requiring the aid of a counselor. The problem was solved by designing a tactile answer board with small pegs for keeping score. The board was labeled in large print with clear plastic braille labels placed over the print labels. Cassette tapes of the SDS script and other directions were provided for the adapted SDS.

An evaluative study of the effectiveness of this adaptation of the Self-Directed Search (SDS) was conducted. The target population for the evaluation, 26 blind clients of the State Division of Blind Services, was administered pre-test instruments, the SDS, posttest instruments, and a follow-up questionnaire. Wilcoxon Tests were performed on pre-posttest results to determine SDS effectiveness on selected criteria. Results revealed significant differences in number and consistency of occupations under consideration, satisfaction and certainty about vocational plans, and interest in general information about self and occupations. Descriptive analyses performed on posttest results revealed individuals varied in their ability to apply Holland's theory, and in their participation in vocational information-seeking. The majority of SDS users rated the experience positively. It was concluded that the adapted SDS is an effective vocational guidance alternative for the blind.

Besides the Self-Directed Search, we developed an audiotaped occupational information library which describes approximately 600 jobs. We audiotaped interviews with blind men and women working in a variety of occupations and interviews with faculty members who describe Florida State University academic programs as they relate to different careers. A Resume Writing Guide and Interview Preparation Guide were also developed in braille, large type and audiotape forms.

We also have complete and unabridged editions of Sections 503 and 504 Regulations in braille; an audiotape discussing Section 504 and Affirmative Action Regulations and their implications for career planning; an audiotaped list of questions typically asked of the disabled during employment interviews; and a college handbook describing programs and facilities for the disabled at over 500 colleges and universities.

Field testing for the grant project occurred in CCIS and at the Rehabilitation Center for the Blind in Daytona Beach, Florida. In evaluating the career materials, users completed the User Evaluation Form after their experience with the career planning materials. The majority of the users found the career materials easy to locate, current, and helpful. Eighty-one percent were very pleased with the services offered by the program, 50% were overwhelmed by the volume of materials available, and 94% would recommend the career planning program to a friend who wanted career planning information.

Thirty-one percent felt obtaining relevant information from materials was too time-consuming.

Specific recommendations for further evaluation studies include the following. First, a longer, more extensive evaluation of this career planning program is needed. Such an extended field test should include more blind students from more varied settings. Second, with its self-directed program consisting of numerous components, a longer field test period, i.e., twelve months, is essential for obtaining sufficient data to determine program effectiveness. And, third, a large target population with greater professional staff involvement is also needed to provide documentation of the impact of this self-directed career planning program for the visually disabled.

The final report and replication manual for this project includes sections on what we could have done better, complete evaluation of the adapted Self-Directed Search, and test materials which helped validate the practicality and accessibility of all our materials.

FOREWORD

In the past few years, considerable national attention has been directed toward the career education needs of students in American schools. Concerned individuals have vociferously contended that the majority of students leaving the educational system are ill-equipped to encounter the demands of our rapidly changing and complex society. In fact, close to one million students are still dropping out of school every year because it is not helpful and relevant enough in their thinking.

Individuals with handicapping conditions have also gained considerable attention in the past several years, particularly since the passage of the Rehabilitation Act of 1973, Education for all Handicapped Children Act of 1975, and the Vocational Education Amendments of 1976. No longer can school systems readily exclude these individuals from their services or segregate them away from the mainstream of regular activities. Now, handicapped students are entitled to a free and appropriate education in the least restrictive environment. In addition, their education must be tailor-made to fit their individual needs and potentials.

Another significant recent development in the wave of commitments that have begun occurring was issued in June, 1978, when the U.S. Commissioner of the Office of Education proclaimed that every handicapped child will now be provided with an appropriate and comprehensive vocational education in accordance with his/her needs and abilities. It is anticipated that many other prestigious agencies, organizations, and leaders will also demonstrate and offer a greater commitment to the career and vocational education movement that has occurred in the past as the appropriate educational programming mandate moves into motion throughout the country.

Two new organizations that have evolved in recent years in response to the career development thrusts are the Division on Career Development (DCD) of the Council for Exceptional Children and the National Association of Vocational Education Special Needs Personnel (NAVESNP) of the American Vocational Association. These organizations, along with many others which have been in existence, are spearheading efforts to make career/vocational education for the handicapped a reality throughout the land. State and local educational agencies are also turning their attention to the career education concept and its potential for meeting the educational needs of the handicapped, as well as all students. Thus, the recognition of the potential of career education for meeting today's mandate is increasing in its intensity throughout the country.

Implementing appropriate educational services for handicapped students is the next major step. The concepts, materials, and processes that have been developed must be put into motion and in an effective manner. This is no easy task, particularly in the case of handicapped individuals who must be integrated and accommodated appropriately in the least restrictive environment. For certain handicapping conditions, a paucity of career education materials exists. Individuals with visual handicaps are one of these groups.

The project presented in this report represents a concerted and dedicated attempt to develop an effective career guidance service for visually disabled students based in part on John Holland's Self-Directed Search approach. The project was an ambitious attempt to modify and validate materials and procedures from the Curricular-Career Information Service (CCIS) at Florida State University so that visually disabled individuals could learn occupational information, decision-making strategies, job-search methods, and begin to formulate realistic career plans.

Like all ambitious projects, every objective was not met, but in my opinion very justifyably. In reviewing the project, I found materials development aspect to have been met but validation efforts to be only partially achieved. This is understandable in view of the short-time period of the grant and typical technical problems that are always inherent in such projects. In essence, I would consider this a successful pilot study which now needs further validation with a greater number and type of visually disabled individuals. There is an obvious need to relate Holland's theory to visually disabled and other handicapped individuals and further efforts are strongly suggested in this area.

The package that has been developed by the project staff is replicable and usable under the limitations noted above and should be considered for use in many different types of settings (e.g., public schools, rehabilitation facilities, career centers, and others) which provide career awareness and planning services to the visually disabled. This is one of the few systematic efforts that I know of that has attempted to develop such an innovative approach for conducting career guidance activities with this population. Its self-directed feature is a much needed departure from traditional services although a certain amount of professional assistance will be needed by the visually disabled individual in taking it and interpreting its results. The approach warrants further investigation, development, and consideration. Dr. Reardon and his staff have done an exemplary piece of work and it should not go unnoticed and untried in career education practices that go on in this country.

Donn Brolin, Ph.D.
Professor of Education
University of Missouri
Columbia, Missouri

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INTRODUCTION AND PRE-GRANT HISTORY OF CCIS INVOLVEMENT WITH BLIND CLIENTS

The purpose of this manual is to help people who want to develop a career information center accessible to the blind. Our staff believes that we can best accomplish this purpose by explaining what we are, have done, have not done, would like to have done, and could have done better.

Our project, to develop a self-directed career planning program for the visually disabled, began in the spring of 1976 when a group of blind students on the Florida State University campus asked us to help them with their career planning needs. But the bulk of the work on the project began after October, 1977, when the Curricular-Career Information Service (CCIS) in conjunction with the College of Education at F.S.U. received an HEW/OE Office of Career Education grant to develop and evaluate a career planning program for the visually disabled.

How We Began:

To explain how we began working on the project, it is first necessary to share a little background information on the nature of CCIS, the Curricular-Career Information Service. CCIS is a self-help or self-counseling career information center at Florida State University which was created in 1972 to improve the delivery of career planning services to college students. Relying heavily on instructional design techniques, CCIS can be described as an outreach, self-help oriented, multimedia-based career exploration program (Reardon and Minor, 1975; Reardon and Domkowski, 1977). CCIS utilizes a modular approach to learning. Prior to our work with visually disabled students, CCIS had ten instructional modules covering a wide range of career planning concerns. The modules were titled:

Module I: Everything You've Always Wanted To Know About CCIS--CCIS Introduction.

Module II: What's Involved In Making A Career Decision--Guidelines For Career Decision-Making.

Module III: Looking At Your Interests--Self-Assessment.

Module IV: Information: Where To Find It And How To Use It--Career Information Sources.

Module V: Matching Majors And Jobs--Linking Education And Work.

Module VI: Job Forecast And Your Career Plans--Employment Outlooks.

Module VII: For Blacks--Career Planning For Black College Students.

Module VIII: Especially For Her--Career Decision-Making For Adult Women.

Module IX: Your Job Campaign--Employability Skills.

Module X: Where Do You Go From Here?--Campus And Community Resources.

Our underlying assumption is that given the proper resources, most people can find information and make personally meaningful decisions relating to the world of work; their own skills, aptitudes, and interests; and how to go about getting employed. The goal of the grant project was to translate the values, purposes, and resources of CCIS so that these could be used by visually impaired people as they are and have been by the sighted.

CCIS has been carefully evaluated over the years, and the results have shown the program to be popular among students and effective in meeting its goals (Fisher, Reardon, and Burck, 1976; Smith, 1973). In addition to serving university students, CCIS has been effectively utilized by area high school students and adults from the community.

Increasing Accessibility for the Blind:

But, CCIS until very recently, was not truly accessible to F.S.U.'s large population of blind students. CCIS interest in career planning needs for the blind began in the spring of 1976 when a group of visually impaired students asked two CCIS staff members to lead Resume Writing and Interview Preparation clinics designed to meet their special needs. This was accomplished fairly easily by putting the materials traditionally used for these clinics into a braille format and using the audio portion of a videotape.

When the formal presentation ended, several of the blind students expressed interest in knowing what other career planning and guidance services CCIS had available. The staff members present outlined the services offered by CCIS and embarrassingly admitted that most of the services and information in CCIS were not readily accessible to the blind. As a result of their interest, and concern, a group of the blind students agreed to serve as an informal, ad hoc advisory committee to help CCIS become more accessible to the visually impaired.

A CCIS staff member met with this committee as a group and with individuals of the group separately for about one year. Our total contact was with twelve different visually impaired students. All were upperclassmen or graduate students. Only four were totally blind and using a cane or guide dog but all were legally blind. The purpose of these meetings was to discuss career planning problems of visually impaired students at F.S.U. and to seek their ideas about how CCIS could help meet their needs. During this same period, a CCIS staff member conducted an ERIC computer-assisted literature search of career planning problems and programs of and for the blind. This literature review corroborated the firsthand information collected from our ad hoc advisory committee of blind students--there were significant needs for improving career planning services for the blind. The problem most often cited by these students was that career planning is a process over which they had very little control. There existed little current career information organized in such a manner that the blind could have access to it and utilize it without the aid of a counselor, teacher, or parent. Many of the blind students we talked with firmly believed that their counselors tended to channel them towards stereotypic "careers for the blind". Others felt that their counselors were doing a very admirable job of helping them under the circumstances, but the counselors were often the blind clients' sole source of career information. The students we talked with wanted to have the same opportunity as their sighted peers to engage in career and academic decision-making on their own (even if that meant making some mistakes or unrealistic first choices and then learning from and profiting from those mistakes).

As a result of our meetings with this "advisory committee," the CCIS staff committed itself to making our self-help career center as accessible as possible to the many blind students attending Florida State University. The initial work on the project involved transcribing our Employability Skills materials into braille and allowing partially sighted students to take printed materials to the Blind Services Learning Lab down the hall from the CCIS center, where they could read with the help of electronic visual aids. The Employability Skills module materials were given top priority because at the time the overwhelming majority of visually disabled students at F.S.U. were juniors, seniors, or graduate students. We were planning to gradually expand transcription of our other modules into braille when our budget was cut by 46%. This meant, without external funding, we could not undertake any new projects, Not wanting to discontinue the work we had begun, we decided to submit a grant proposal to the Office of Career Education. The proposal, "A Self-Directed Career Planning Program for the Visually Disabled," was funded and work on the grant project began in October, 1977. The five learner goals of the program were:

GOAL I: The visually disabled student will be able to obtain desired career information without requiring assistance from a reader or counselor.

GOAL II: The visually disabled student will be able to comprehend a career decision-making process.

GOAL III: The visually disabled student will be able to apply a career decision-making process to his/her personalized career planning.

GOAL IV: The visually disabled student will be able to integrate knowledge of self and occupations.

GOAL V: The visually disabled student will be able to apply appropriate employment-seeking skills.

GRANT ACTIVITIES AND ACCOMPLISHMENTS

During the project year, October, 1977 to September, 1978, we developed, purchased, assembled, and then pilot and field tested the materials necessary to improve the career planning options of blind students and to make CCIS accessible to the visually disabled students at F.S.U. We hope the following account of our efforts will aid others who wish to make career centers at their own institutions more accessible to the blind.

Getting Organized:

By the time the project had been funded by HEW, most of our ad hoc advisory committee had graduated and left town. We needed someone on the grant staff who could read and write braille fluently and serve as an advisor to the rest of the staff who were not familiar with working with the blind. We hired a visually disabled woman as the full-time project secretary to help us in this regard, and she has proven to be one of the most productive and valued members of the staff. A total of three blind students were hired as temporary assistants at different times during the project year. One of these students was instrumental in the development of our adaptation of John Holland's Self-Directed Search. The other two students assisted in preparing the finished products for field testing and in organizing the layout of the grant-developed materials in CCIS. These students also proved to be very beneficial to the project. In fact, considering the naivete and lack of knowledge on the part of the project coordinator in the area of visual disabilities, it was literally a case of the blind leading the blind.

The rest of the staff consisted of the Principal Investigator (Project Director), the Project Coordinator, an Evaluation Coordinator, an Evaluation Consultant, and a Materials Development Coordinator. There were also several volunteers and one student who assisted us for academic credit. The Principal Investigator was the chief administrator of the project and was one of the authors of the grant proposal. The Project Coordinator, also a co-author of the proposal, was charged with overseeing the day-to-day activities of the project, supervising the staff, writing the necessary reports, and participating in regional and national conference presentations. The Evaluation Coordinator was a one-third-time graduate assistant who was responsible for developing the test instruments for pilot and field testing, coordinating the field tests, collecting and analyzing the data, and assisting the Project Coordinator in report writing. The Project Evaluation Consultant, an F.S.U. assistant professor, assisted the Evaluation Coordinator when requested and was especially helpful in revising the learner and project goals into a testable format. The Materials Development Coordinator, a one-half-time graduate assistant, was responsible for assisting the Project Coordinator in identifying the materials to be transcribed into braille, large print, and audiotape, coordinating the work of the student assistants and volunteers, and coordinating publicity for the project.

After hiring our staff, our first priority was to select an advisory committee. We wanted to have an advisory committee of about eight to ten members. However, we were advised to send out at least twice that number of invitations under the assumption that most people would not have the interest or time to participate. To our surprise, almost everyone we asked to serve agreed to help, and we had an advisory committee of fifteen members.

Almost two-thirds of the advisory committee was made up of blind persons or representatives of agencies and organizations serving the blind. The advice, help, and constructive criticism of several members of the advisory committee proved to be a great resource throughout the project year (see Appendix A re: advisory committee members, procedures, etc.)

Once we had taken care of hiring a staff, selecting an advisory committee, and securing our basic administrative needs, (acquiring office space, supplies, typewriter, etc.) we were ready to begin our actual work on the project.

The Four Tasks:

The work was divided by the CCIS grant project staff into four basic tasks: (1) to transcribe existing visually oriented media into formats that could be utilized by the visually disabled, and to purchase additional materials when

transcription was not adequate or would cost more than buying new materials; (2) to adapt Dr. John Holland's Self-Directed Search (SDS) into a format that would allow blind students the same opportunity as their sighted peers to take, score, and interpret an occupational interest inventory without the aid of a counselor or reader; (3) to catalogue the career tapes transcribed, developed and organized by the project staff in a manner that would allow easy access to the career information by visually disabled students; and (4) to evaluate the materials developed in terms of their ability to meet the project goals.

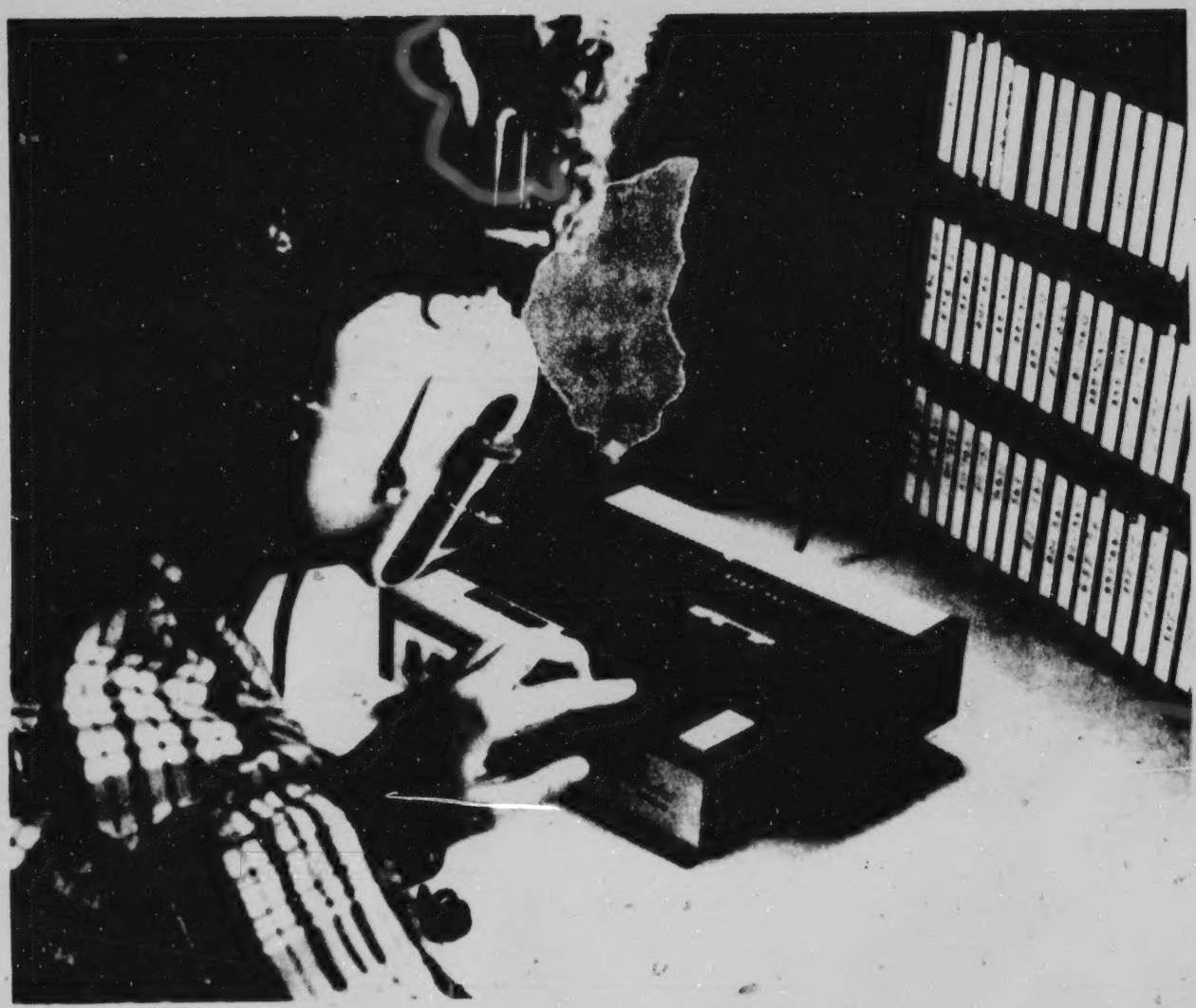
TASK I: TRANSCRIPTION AND ORGANIZATION OF CAREER INFORMATION

What we set out to do, in essence, was to create a mini-CCIS within CCIS. We wanted to be able to put all of the materials the blind could utilize in one location so they could be easily accessed and used without much need for assistance. This meant the materials had to be organized in a logical manner. The obvious plan was to use the same modular system that was being successfully used by sighted students in CCIS. Naturally, changes, additions, deletions, etc., had to be made, but basically they are very similar to the CCIS modules listed earlier. The module sheets or instructions developed by the project staff can be found in the Appendix B.

All of the project learner goals listed earlier fit into one or more of the existing CCIS instructional modules, so the problem was to make them accessible to the blind students. For a while, out of sheer naivete, the project staff considered transcribing all of the printed materials into large type and braille. This plan proved to be totally unrealistic, since braille materials require much more storage space than CCIS has available. In addition, with developments in modern electronic equipment, many blind persons do not read braille. Further, many partially sighted students cannot read large type because it is too large for them to read with their visual aids but still too small to read by sight alone.

Using cassette tapes was the logical solution. CCIS already had an audiotape library of over 100 different career titles in career interview or occupational brief formats. The grant staff decided to include all of those tapes and to increase the library by as many tapes as time, money, and space would allow. The career tapes we made were simply occupational briefs read out of the Occupational Outlook Handbook. The selection method was also simple. Since CCIS is located in a university and consequently serves primarily a college student population, the majority of the tapes we recorded describe careers requiring a college degree.

These are the two study carrels that house our career planning program for the visually disabled. Both carrels are equipped with cassette tape recorders. All of the tapes are labeled in both large print and braille. To aid the students in locating desired materials, we have designated the carrel on the left as carrel No. 1 and the carrel on the right as carrel No. 2.



A student listening to a tape at carrel No. 2.

We used a list prepared by the U.S. Department of Labor which showed the occupations most college graduates would be entering during the 1975-85 decade. We did record some tapes about occupations requiring less than a college education. The criteria we used for these tapes was a list of 35 occupational clusters which currently represents over 50% of the work force in the United States (see Appendix C). In both instances, we did not record any information about careers that were already represented in the CCIS audiotape library.

No effort was made during the selection process to weed out "careers for which the blind are not well suited." We received considerable comment about this, but we felt we had no other alternative for a number of reasons. First, there were the 504 Regulations of the 1973 Federal Rehabilitation Act. These guidelines specifically state that a college placement or counseling office cannot withhold assistance or information on the basis of an individual's handicap. These regulations state further that all handicapped students must have access to programs available to nonhandicapped students.

Second, CCIS is a career information center which operates under the assumption that the student consumer is capable of making realistic decisions after seeking out and digesting as much information as possible. We were told by several people that if we allowed blind students access to information about occupations they could not possibly enter we would be giving them false hopes or expectations which would be detrimental to their career planning and preparation. We believed that just the opposite would occur. The more information a student can gather about a possible career choice, the more realistic and informed his or her final decision will be. And of course, career information includes the physical requirements for a given job or occupation. If a career center operated under the philosophy that students should not be allowed access to information about careers they are not likely to be able to enter, then C minus students would not be allowed to obtain information about careers in medicine, obese students would not be allowed to obtain information about law enforcement or military careers, and nobody would be allowed access to information about careers in higher education.

Perhaps the third and most important reason for not censoring career information on the basis of handicap is that in many cases it is only the handicapped themselves that ultimately decide what they can or cannot do. At one time, we were actually considering deleting an item from an occupational interest inventory that referred to experience with painting. That same week, a totally blind woman came through our town exhibiting her oil paintings. Her paintings were not abstracts; they were floral arrangements easily recognized as such and admired for their artistic beauty by all who saw them.

We decided not to delete the painting item from the interest inventory.

Throughout the project year we have run across a number of occupations being held by blind persons in which we cannot understand how the job could be performed without sight, physician, meteorologist, funeral director, nuclear physicist, aquatic horse trainer, emergency medical technician, to name just a few. Obviously, we do not think we are qualified to tell visually disabled individuals what they can or cannot do.

In addition to information about specific careers, we also recorded several career planning books on tape. This was done, of course, with permission by the publishers and/or authors involved. The criteria for selecting which of the more than 30 career planning books on the CCIS bookshelf to record was perhaps our most innovative. We chose the books that were most often stolen from the center. We reasoned that the information they contained must have been valuable to the students who took them. A list of all the resources made available to blind students through our project can be found in Appendix D.

Major Purchases, Gifts and Donations:

A number of materials were donated to us by organizations serving the blind. A braille copier worth approximately $750 was lent to us by the Lions Clubs of Florida. A church organization that wishes to remain anonymous lent us a cassette tape copier worth approximately $1,200 and gave us one thousand blank cassette tapes worth about $500. Also, the Jewish Braille Institute recorded over 50 tapes for us at no charge. The Division of Blind Services in Florida has provided us free consultation and has helped us in our field testing. There are numerous agencies and organizations of and serving the blind which are always glad to assist in any way they can. We strongly urge any institution thinking about making their program accessible to the visually disabled to contact the state and local agencies and private organizations serving the blind in their area in order to determine the kinds of resources that might be available.

We did, however, need to make some major purchases. Altogether, the audiotape library developed by the project contains about 300 cassette tapes. We needed two copies of every tape, one for our own center and one to field test at a site away from Florida State University. We needed individual plastic boxes for each tape (9¢ apiece) and we needed storage shelves for the entire audiotape library (approximately $150). We needed a brailler (approximately $150) and well over 100 sheets of laminating paper used to make braille labels (approximately 20¢ per sheet).

We purchased five boxes of braille copying paper (Thermoform--at approximately $30 per box). And, we purchased the Occupational Information Library for the Blind from the Greater Detroit Society for the Blind for $110. This library of 35 19-minute tapes describes approximately 600 different jobs being successfully performed by blind men and women. Whenever we could, we tried to use existing resources or get donations, not because the money was unavailable, but because we wanted to show that the cost of making a career center accessible was not prohibitive. By the end of the project year we will have spent most if not all of the $59,000 allocated to us, but the majority or about 70% of that money was spent in staff salaries and for evaluation of the materials and products developed by the project staff. The money needed to acquire or develop materials described throughout this report was relatively small (less than $1,000). For instance, we discovered that to have our tapes recorded professionally would have cost $30 per hour for studio time plus $14.50 per tape for each copy we wanted from the master produced. Obviously, this cost would have been prohibitive for most career centers. We did send several of our materials to volunteer organizations that make free professional quality recordings for the blind. But that often takes up to six months or more before the finished product is returned. We solved the problem by using resources available on our campus. We had good quality tape recorders in CCIS so all we really needed was a soundproof studio and professionally trained voices. The studio space we were able to obtain from the College of Education Counselor Training Program. The speech department agreed to give extra credit to students who provided their voices (and their diction for the most part was of excellent quality). And, a professor of Rehabilitation Services allowed one of her students to assist us for independent study credit. Since the blank tapes had already been given to us, we recorded approximately 300 tapes at virtually no direct cost.

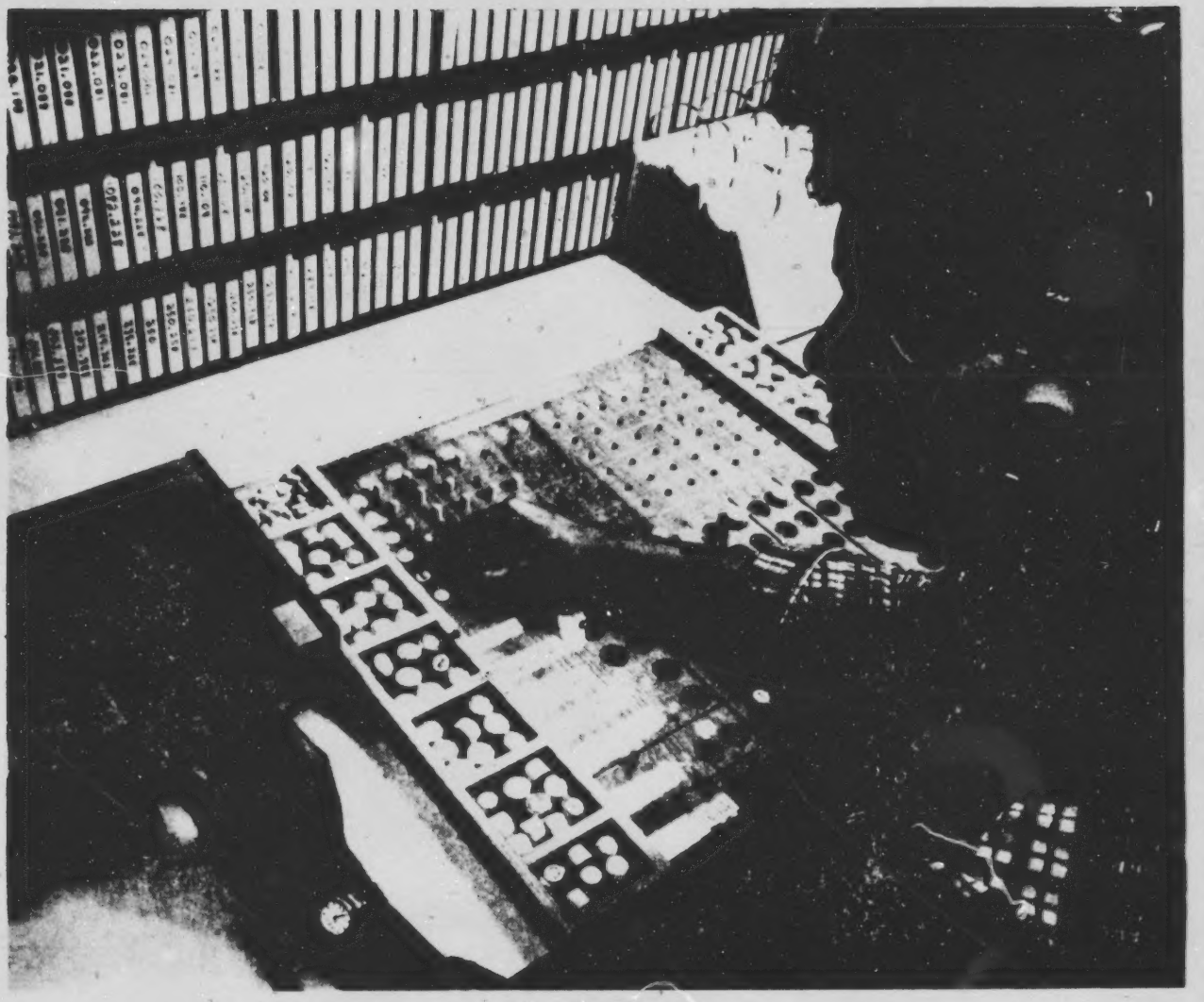
All of the large print and braille materials were produced relatively inexpensively also. The original braille copy was produced by our secretary and blind students serving as temporary employees or volunteers. The large print was typed by our secretary on a borrowed large print typewriter. Other than the employees' time involved, the only direct cost was in duplication. Six cents per sheet of braille copy and five cents per sheet of large print copy.

TASK II: THE SELF-DIRECTED SEARCH

The most difficult task faced by the project staff was trying to adapt a career planning inventory into a format that could be taken, scored, and interpreted by a blind student without the aid of a counselor or reader, our original ad hoc advisory committee and other blind students we interviewed were very distrustful of the use and the results

A student reading the braille copy of the Careers on Tape Catalogue. The catalogue lists over 600 different careers.

A student taking our adapted version of the SDS occupational inventory.



of vocational and personality inventories. They claimed that often they never saw the results of such inventories, but that those results were used by educational administrators or counselors to make decisions affecting their lives. When members of the project staff reported the results of these blind student interviews in meetings or in print, they have been vigorously denied by most VR counselors and other professionals who work with the blind. While determining which side was right in this controversy would have been an interesting project, it was not the purpose of our project. But, in order to work effectively with blind students on our campus, we had to deal with what they perceived to be true. This meant we had to develop an assessment device that could have been completely controlled by the consumer--the blind student.

For sighted students, such an assessment device, John Holland's Self-Directed Search (SDS), was already in use in CCIS. That instrument, however, was only available in printed form. Even if the SDS were put on cassette tape, visually disabled students needed some nonvisual way to score the instrument. The problem was solved by designing a tactile answer board with small pegs for keeping score (see Appendix D for illustration). The boards are labeled in large print with clear plastic braille labels placed over the print labels. The board has been pilot tested and field tested and has been well received by most of the blind students who have used it.

Visually disabled students who elected to take the SDS could utilize the outcome of the inventory immediately upon its completion if they wished. When a student has completed the SDS, they have generated a list of careers with Dictionary of Occupational Titles (DOT) numbers related to their interests. The tapes developed and copied by the project staff are arranged numerically according to their DOT numbers. Using the large type or braille labels on the tapes, the students can quickly find the tapes that are of particular interest to them.

TASK III: CAREERS ON TAPE CATALOGUE

A visually disabled student does not, however, have to take the SDS to access career information. The project staff has developed a large type and braille alphabetical catalogue which enables the student to locate occupational information from either the tapes produced by the staff (arranged according to their DOT number) or the tapes included in the Occupational Information Library for the Blind (arranged according to their OILB numbers). See Appendix E for a description of the catalogue and directions for its use.

TASK IV: EVALUATION

The work of evaluating materials developed by the staff, and the goals of the project, began of course, at the onset of the project year. The first task was to revise the learner and program goals into a more testable or evaluatable format. The revised goals can be found in the appendix. The next major evaluation activities centered around the pilot and field testing of the SDS and developing the necessary measurement tools. The last phase has dealt with evaluating the results of the final field testing and the ability of the project to meet its program goals. The entire evaluation process is outlined more completely in the following section.

This section describes the evaluation activities and results. As stated in the evaluation plan (see Appendix R), the evaluation of the impact of the CCIS grant project, "A Self-Directed Career Planning Program for the Visually Disabled", focused upon the following basic questions:

1. To what extent were the client objectives met--has the desired change in client behavior occurred?

2. Has the impact of the program been adequately documented and described to provide needed information to those considering its adoption?

3. Have the estimated developmental and operational costs been documented and described to provide needed information for those considering program adoption?

Each of these basic questions is discussed in this section. First, however, a description of the evaluation activities will be presented.

As stated earlier, learner and program goals were rewritten into behavioral terms (see Appendix X). Behavioral objectives were then written for each learner goal. An evaluation plan was subsequently written and can be found in Appendix R. This plan provided the framework for the evaluation activities which took place during the year.

Once goals, objectives, and the evaluation plan were developed, attention turned toward evaluating the effectiveness of the adapted version of the Self-Directed Search. This took place in two phases. The formative phase consisted of one-to-one administration, technical review, and pilot test of the adapted SDS. The purpose of the formative phase was to obtain feedback on which to base revisions of the SDS.

The summative phase consisted of a field test of the revised SDS to determine its effectiveness with visually disabled individuals. Evaluation findings revealed that the revised SDS was (1) effective in increasing the number and consistency of occupations under consideration; (2) effective in decreasing the need for general information about self and occupations; (3) effective in increasing certainty and satisfaction about vocational plans; (4) effective in increasing vocational information-seeking behavior; (5) effective in promoting the ability to apply Holland's theory; and (6) effective in eliciting positive user evaluations.

Of primary significance, these results suggest that existing career planning programs and instruments designed for the general population can be adapted for special populations without reducing their effectiveness. In addition, the results imply that visually disabled individuals will assume more control over their career planning if given the opportunity.

A copy of a detailed report of the evaluation of the adapted SDS can be found in Appendix J. This report includes recommendations for future study of the adapted SDS, including adapting Form Easy of the SDS for persons with low reading ability, evaluating the adapted SDS with a larger blind population to allow other statistical analyses, and investigating the frequency with which blind persons achieve rare SDS Summary Codes.

After field testing the SDS, the project staff began preparing for the field test of the entire career planning program, both on and off campus. Instruments were developed to measure attainment of learner objectives, program impact, unanticipated outcomes, user reactions, and program exportability. These instruments can be found in Appendix S.

In attempting to implement a "pure" field test situation away from the campus, all materials were transported to a rehabilitation center for the blind in Daytona Beach, Florida. A training workshop was held to introduce the staff to program and data collecting instruments, and then the program was left in their hands to integrate into their center as one would if the program were purchased. There are inherent problems with such field testing where project personnel are not consistently monitoring for fidelity of use, and are not collecting the data themselves. Of course, we ran into some of these problems, as well as others, in our F.S.U. and Daytona Beach field test sites.

First, the structure and format of the self-directed career planning program compounded the difficulty in collecting data. Second, implementing a career education program on an academic calendar while staying on a federal budget timeline automatically limited field test activities at Florida State University because the field test occurred during the quarter

break and the summer quarter. Obviously, these are not peak enrollment periods for sighted or nonsighted students and field testing participants were quite small in number. Third, the lack of an intact blind group of substantial size in any one geographic location limited the field test. Fourth, self-directed format added difficulty to data collection since the nature of the program allowed some materials to be taken home, and also allowed individuals to select for completion only those modules they felt they needed. Therefore, some modules were used extensively (Module III: the SDS), and others rarely. And, finally, even though we professionals know that career planning is time-consuming and important, the student's time is often limited and it is hard for them to participate in all aspects of a program, much less be involved in an evaluation study. We don't intend to offer these as excuses, but only to alert the reader to some of the problems encountered during the spring and summer field tests of our program.

Field testing occurred in the Curricular-Career Information Service on the Florida State University campus and in the Rehabilitation Center for the Blind in Daytona Beach, Florida. A total of 16 visually disabled persons were involved. In evaluating the career materials, users completed the user evaluation form after their experience with the career planning materials. The majority of users found the career materials easy to locate (81%), current (75%), and helpful (88%). Eighty-one percent were very pleased with the services offered by the program, 50% were overwhelmed by the volume of materials available, and 94% would recommend the career planning program to a friend who wanted career planning information. Thirty-one percent felt obtaining relevant information from materials was too time-consuming. A complete breakdown of responses to the user evaluation form can be found in Appendix T.

In addition to the user evaluations, documentation of impact and exportability was made. Four independent reviewers at the Rehabilitation Center in Daytona Beach who have expertise in vocational rehabilitation of the visually disabled reviewed all materials in use during the field test and completed an Impact Certification Form (see Appendix S). The mean time spent reviewing materials was two months. Regarding impact, the reviewers unanimously agreed that (1) the CCIS career planning program enabled blind individuals to actively participate in career planning, (2) participants seemed interested in the career planning materials, and (3) exposure to the career planning program prompted further career planning behavior. The majority of the reviewers also agreed that the instructional strategy used in the materials appeared to be thorough and potentially effective in teaching the intended skills and knowledge to the target audience. In the area of exportability, the majority of reviewers indicated the program was acceptable in terms of overall appearance, organization,

potential effectiveness, potential usefulness of content, estimated ease of use, quality of writing, quantity of content, and use of directions and instructions within the materials. In addition, they unanimously agreed that the materials appeared readily usable by the student user. Concern was expressed, however, regarding appropriateness of reading level for those with less than a college education.

The reviewers agreed unanimously that there is reason to believe that a need exists for this program, and that other professional persons working with the visually disabled would be interested in using this program. Three agreed the materials appeared to be packaged in a form that is easily used by adopters with a minimum of training and assistance. One reviewer was unsure regarding this item. All four reviewers also stated they would use the CCIS career planning program (or recommend its use) with visually disabled persons desiring career planning assistance, and all four found materials, as a whole, acceptable. Regarding unanticipated outcomes, the following comments were provided by the reviewers:

"good counseling tool"

"directs student planning"

"initiates interest in students leading to motivation to obtain more information"

"provides some direction for information-seeking"

"helps them become aware of additional interest areas that may serve not only as vocational possibilities but ones that provide a vocational interest too"

The most common negative outcomes pinpointed by reviewers were the need to modify materials for those not college-bound and the desire for more detailed information in the job descriptions on audiotape. A complete breakdown of reviewers' responses can be found in Appendix U.

In addition to the User Evaluation Form and Impact Certification Form which were implemented in the field test, a Career Planning Program Observer Rating Sheet and Pre-test and Posttest instruments for several modules were developed. (See Appendix S). However, due to the time constraints and staff limitations at the field test sites, and the program problems discussed earlier in this section, the field test coordinators did not implement the latter two instruments. Instead, they chose to submit a detailed report of observations (see Appendix Y).

In addition to the results discussed above, two external experts representing the fields of vocational guidance and career education for the handicapped were brought in to evaluate the materials.

Dr. John L. Holland, Professor of Social Relations at Johns Hopkins University, noted expert in career development theory and research and author of the Self-Directed Search, reviewed the materials during the developmental period. Dr. Donn Brolin, Professor of Education at the University of Missouri and noted expert in career education for the handicapped, reviewed the materials after field testing was completed. Dr. Holland's written review can be found in Appendix V and Dr. Brolin's comments are in the Foreword of this report.

Having obtained these results, the project staff focused back upon the three questions with which the project was concerned:

1. To what extent were client objectives met--has the desired change in client behavior occurred?

2. Has the impact of the program been adequately documented and described to provide needed information to those considering adoption?

3. Have the estimated developmental and operational costs been documented and described to provide needed information to those considering program adoption?

As stated earlier, the Observer Rating Sheet and Module Pre- and Posttests were not implemented at the field test sites; therefore, we are unable to document the attainment of learner objectives as stated. However, evidence was obtained relative to each learner goal. Each of the five learner goals will be addressed in this section.

Goal 1: The visually disabled student will be able to obtain desired career information without requiring the assistance of a reader or counselor.

Field test data revealed the career planning program enabled blind individuals to actively participate in career planning. Participants indicated the materials were easy for them to locate and exposure to the materials prompted use of additional career planning materials and resources. Participants also indicated they were very pleased with the services of the program. Thus, it appears the visually disabled participants were able to obtain desired career information without requiring a reader or counselor to obtain it for them.

Goal 2: The visually disabled student will be able to comprehend a career decision-making process.

One of the program benefits mentioned by several of the materials reviewers was that the program helps "direct student planning" and "provide direction for information-seeking". Several participants also stated that Module IX,

"Guidelines for Career Decision-Making", was one of the most helpful modules. Also, one participant stated, "it (materials) leaves one making their own decisions which I think is good".

Goal 3: The visually disabled student will be able to apply a career decision-making model to his/her personalized career planning.

Although evidence was obtained indicating participants engaged in various modules of the career planning program, sufficient data was not obtained on which to base a judgment of goal attainment.

Goal 4: The visually disabled student will be able to integrate knowledge of self and occupations.

There were three learner objectives related to this goal:

1. Given the visually disabled version of the SDS, the student will record and score all responses on the inventory;

2. Given the results of the inventory, the student will list his/her Summary Code with a brailler or pencil, and match it to the corresponding personality patterns; and

3. Given their SDS Summary Code, students will list at least three occupations congruent with their SDS code by means of a brailler or pencil.

Results of the field testing of the SDS indicated all three of these objectives were met (see Appendix J). Therefore, it appears goal 4 was attained.

Goal 5: The visually disabled student will be able to apply appropriate employment-seeking skills.

As is the case with goal 3, sufficient data was not obtained on which to base judgment of goal attainment.

Goals six through ten are program goals. These are addressed as follows:

Goal 6: The program will provide visually disabled students the opportunity to utilize CCIS resources.

Indicators of achievement of these goals include transcription and organization of career planning materials for use by the visually disabled including 102 occupational briefs and interviews on audiotape, three career planning books on audiotape, and a variety of other career planning materials; and advertising which included an appearance on Tallahassee's WFSU television and descriptive flyers (see Appendix F and G).

Goal 7: The program will provide an in-service training component.

Two in-service training programs were conducted at Florida State University. Fourteen participants were introduced to the career planning materials and equipment. Participants were taught sightguiding and skills in career counseling with blind clients, and then participants demonstrated competencies in these areas. A State Office of Blind Services consultant and counselor assisted in conducting these programs.

In-service training was also provided at the Daytona Beach field test site. Approximately seven counselors and instructors were introduced to the career planning program and the data-gathering instruments during a day-and-a-half workshop conducted by three project staff members. The workshop participants were those individuals who were to coordinate the field test in their center.

Goal 8: The program will assist visually disabled students in developing career decision-making skills.

Indicators of goal attainment include the variety of resources used by the participants, a documentation of user satisfaction, and endorsement of the program by constituents and professionals (see Preface and Appendices V and W).

Goal 9: The program will demonstrate a process through which a service can be developed to accommodate career needs of visually disabled students.

Indicators of goal attainment include documentation of visually disabled students' needs (see pages 2 and 3 of this manual), formulation of goals and objectives (see Appendix X), materials production, pilot testing, field testing, implementation of materials, evaluation of learner outcomes, and determination of whether or not program goals were met. These indicators are all addressed in this report.

Goal 10: The program will document conditions under which the program can be replicated effectively.

Indicators of goal attainment include production of this user's manual, documentation of program constraints, documentation of evaluation activities, documentation of the program development process, documentation of the implementation process, and documentation of unintended outcomes, all of which have been addressed in this report.

The second question on which the project focused, regarding impact documentation, was addressed earlier in the evaluation section. The third question regarding developmental and operational costs is addressed in the financial report which has been prepared and provided separately by the Office of Contracts and Grants at Florida State University.

It is recognized that, for reasons already stated, some of the learner goals lack hard data for documentation of attainment. Specific recommendations for further evaluation studies include the following. First, a longer, more extensive evaluation of this career planning program is needed in order to judge attainment of at least two of the learner goals. Such an extended field test should involve more blind students from more varied settings. Second, with its self-directed program consisting of numerous components, a longer field test period, i.e., twelve months, is essential for obtaining sufficient data to determine program effectiveness. And, third, a larger target population with greater professional staff involvement is also needed to provide documentation of the impact of this self-directed career planning program for the visually disabled.

PROBLEMS ENCOUNTERED ALONG THE WAY

They say hindsight is 20/20 vision, and now that the project year is near its end we are able to identify clearly a number of the mistakes we have made, and the changes we would make if we were to start anew.

Ad Hoc Committee:

Probably the biggest mistake we made was assuming we had learned just about all there was to know about blindness and career planning problems of blind students from our original ad hoc advisory committee of visually disabled students. Almost all of the students we originally worked with were very bright and articulate. Most of them, both the totally blind and the partially sighted, could read braille very well. At their request, we had already transcribed our employability skills materials into braille before the grant project began. Because of the positive reception of these materials by the blind students who were then on campus, we planned to utilize primarily braille and large type formats for most of the material we produced during the project year. It was not until we were about two months into the project that we learned only about 10% of the blind population can read braille. This meant we had to make a quick change to an audiotape format and this prolonged the time scheduled for materials development.

Another problem concerning our ad hoc committee was that we never added new members. By the time the grant project started, there remained only one or two of the original members who had not yet graduated and left Tallahassee. Many of the new visually disabled students at Florida State University viewed us as part of the establishment rather than as part of something in which they were intricately involved. As a result, we had a little difficulty getting blind students to help us in our pilot and field testing. The problem was solved in part by hiring a few blind students as Student Assistants, who proved to be a tremendous asset to the project.

Division of Blind Services (DBS):

Partially because we thought we had gained all the information we needed about blindness from our ad hoc advisory committee and our literature search, and partially because we sensed some antagonism by several blind students towards the state Division of Blind Services, we did not seek the Division's fullest assistance in preparing our proposal or when we first learned we had been funded.

This was probably a mistake. The Division of Blind Services could have been helpful from the beginning as it was later helpful to the project in a variety of ways. Their staff at the Regional Rehabilitation Center in Daytona Beach, Florida, assisted in the field testing of the project-developed materials and the local office here in Tallahassee paid the salary of a blind student who worked on our staff for about ten weeks. That student's knowledge of audio-production was particularly beneficial. Also, three members serving on the grant project advisory committee were from the Division of Blind Services. Again, we strongly urge any institution considering adapting their programs to meet the needs of the visually disabled to seek the advice and assistance from all agencies and organizations that work with the blind, even when that advice and assistance is in conflict.

Volunteer Organizations:

There are several volunteer organizations, both publicly and privately supported, that produce fine quality braille and audiotape transcription from print copy. However, these organizations may take from four to six months to complete the work (some material we sent to be brailled over seven months ago still has not been returned). This would not have been much of a problem for us if we had anticipated it, but several of these organizations promised us a four- to five-week turnaround. After the materials were several weeks late in arriving and we had inquired as to what the problem was, we were told the materials would be sent in "next week's mail." This happened several times before we realized we would have to make most of our own tapes. Naturally, this slowed the project down and we had to delay field testing of our materials by several months. We would recommend that any career center wanting to tape their materials for use by the blind produce their own tapes using the methods described earlier in this paper. This would be especially necessary in the presence of a tight time schedule.

High Prices:

Materials and special equipment for the blind tends to be very expensive. For instance, a brailler, which is smaller and much less intricate than a typewriter, costs a minimum of $150. And, it may take from six months to a year for delivery after purchase. This is another good reason to get involved with local organizations serving the blind. You may be able to borrow the use of a brailler until your purchased equipment arrives, or some organizations may be able to donate equipment to you.

Even software used by the blind is exorbitantly priced. We needed some thin clear plastic sheets for making braille labels which could be placed on top of our large print labels. This would allow totally blind and partially sighted students to use the same materials. To order these sheets from a supply house for the blind would have cost us $1.45 per 8 ½ by 11-inch sheet. We found basically the identical material being sold under the name of laminating paper in our own campus bookstore for 20¢ per sheet. We saved over $100 by purchasing the laminating paper on campus.

Grant Versus Academic Year:

Although the project was funded for twelve months, we really only had eleven months to complete it. Most jobs in higher education start at the end of August or early September. As our project was coming to an end, some of our key staff members were forced to accept jobs elsewhere before the end of the project year. This has reduced the amount of time we would have liked to have spent in data collection, analysis and evaluation.

Because of the delays mentioned earlier, we were not able to begin field testing until the summer when the majority of blind students had left campus. A project year beginning in July and ending in June would have been much more manageable for those of us working under the pressures and constraints of an academic calendar.

If We Knew Then . . .:

We had ready access to a large number of blind college students from the beginning, but it would have been worthwhile if we had spent more time finding and serving the blind community in and around Tallahassee. This would have given us a more diverse group of people from which to draw for advice and testing of our materials. This could have been especially beneficial in the summer months when many of the students were not on campus.

We could have spent more time in locating and developing volunteer services around our own community, especially to read for our taping sessions. We had a steady stream of taping to be done. If we had discovered such agencies as the Student Community Interaction or the Volunteer Action Commission earlier, we would have been able to get the work done a lot sooner.

We should have consulted with more organizations serving the blind at the proposal-writing stage of the project. We had already begun brailling many of our materials before we were told by a representative of the Blinded Veterans

Association that only 10% of the blind read braille and that many of the partially sighted prefer audiotapes to large print.

There were some budget items we would have changed if we had known then what we know now. We had a travel budget of $2,000 which we assumed at the start would be sufficient. However, when we made the budget we were thinking only of the Project Director's required trips to Washington and the trips by staff members to regional and national conferences. We had forgotten about the money required to travel for off-campus field testing. We also assumed that the money paid to consultants for their travel would come from the monies encumbered tp pay consultant fees. However, the University office that manages grant budgets assumed the money would come from our travel budget. We are still trying to iron that problem out.

In spite of all the difficulties we encountered along the way, we were able to accomplish the task that we set out to accomplish. Had we been able to avoid the many hassles that arose, we might have been able to do a better job. But we are not making excuses. We believe in what we have accomplished and feel strongly that other career centers will be able to benefit from our work.

DISSEMINATION ACTIVITIES

Dissemination has been an important part of the project's work from the very beginning. During the first months of the project, a flyer (see Appendix F) outlining the purpose and goals of the project, was sent to every private and public school for the blind in the United States, the chief agency in every state and territory of the United States concerned with the blind, the national headquarters of every organization of or serving the blind, and the career counseling or career resource centers of more than 200 postsecondary educational institutions.

Program presentations have been made at the following state and national conferences:

The Florida Career Education Conference, October 27, 1977, Sarasota, Florida.

The Florida Rehabilitation Association Conference, November 1, 1977, Tallahassee, Florida.

The American Personnel and Guidance Association Convention, March 20, 1978, Washington, D.C.

The Florida Vocational Education Association Conference, August 9, 1978, Orlando, Florida.

Short articles or news items concerning the project have appeared in the following publications:

American Personnel and Guidance Association Convention Summaries, Abstracts, and Research Reports, March, 1978.

American Personnel and Guidance Association Guidepost, Volume XX, No. 11, February 2, 1978.

American Rehabilitation Counseling Association News, Volume VI, No. 1, Winter, 1978.

Career Education News, Volume VII, No. 3, February 1, 1978.

Education for the Handicapped, Volume III, No. 25, December 7, 1977.

Education and Work, Volume III, No. 24, November 29, 1977.

Florida Vocational Journal, Volume III, No. 8, April, 1978.

Fountainhead, No. 91, Winter, 1977-78.

Special Education News, Volume II, No. 3, February 1, 1978.

The brochure and all of the articles published to date about the project have contained an invitation to be put on the project mailing list. Over 400 organizations, institutions, and individuals have requested that their names be added to the list. Other dissemination activities have included an interview with the project coordinator on a local TV talk show, a pictorial display at a highly publicized Florida State University research fair, and an "Open House" held in CCIS for all who were interested in viewing our finished products. Also, the Florida State University Office of Information Services sent news releases and pictures concerning the project to the news media throughout Florida.

Future Plans:

All organizations on the project mailing list will receive an abstract of the final dissemination report. The report itself will be sent to all the state Career Education Coordinators and to all the individuals and organizations who have assisted the project staff throughout the year. The final report will be made available through ERIC documents to anyone who is interested in our findings. A proposal for the presentation of a paper to the CEC National Conference on Career Education for Exceptional Individuals (February, 1979) has been sent to the Council for Exceptional Children (CEC).

An article has been submitted to the Journal of Counseling Psychology, an article in preparation will be submitted to the Personnel and Guidance Journal, and an abstract of the final report will be sent to the Career Education Quarterly.

WHAT WILL COME OF OUR EFFORTS?

All of the materials created, purchased, and assembled by the project staff are currently being housed and used in CCIS (see photographs). CCIS is committed to remaining accessible to the visually disabled and will take responsibility for maintaining the career planning materials we have produced for the visually disabled after the project comes to an end. Upkeep costs will be minimal. CCIS has a policy of replacing information that is outdated (four years old or older). Most of the career information we recorded came out of the current Occupational Outlook Handbook. When this information needs to be updated, the original tape can be erased and re-recorded with more recent information. The recording can be done with CCIS's own equipment using volunteers or student interns. Braille and large print handouts will need to be replaced as supplies diminish. One box of braille copying paper costs $30 for 500 sheets. If every blind student who reads braille asked for a copy of all of our handouts each year, CCIS will have to buy just one box of copying paper per year. Large print materials can be copied for approximately the same price.

New students will be made aware of the resources available to them through an advertising campaign promoted with the help and cooperation of the campus offices of the Division of Blind Services and the Disabled Student Services. For instance, all visually disabled students coming or returning to F.S.U. this fall will receive a braille or large print copy of the flyer found in Appendix G.

The Division of Blind Services Rehabilitation Center in Daytona Beach, Florida, has asked if they could keep and continue to use the materials we provided during field testing. We were happy to oblige them. The Florida State University had about 60 blind students in attendance during the 1977-78 academic year. If that number of visually disabled students continues to study at F.S.U. in the coming years, then, with the addition of the 145 individuals served per year by the Rehabilitation Center of Daytona Beach, at least 205 visually disabled individuals per year could benefit from the work we have accomplished this year. Of course, it is our hope that other career centers will replicate our efforts and multiply manyfold the number of visually disabled students affected by career education.

We are currently exploring with Dr. John Holland and The Consulting Psychologists Press the possibilities for marketing our adaptation of the Self-Directed Search. If this is accomplished, we believe the tactile board and accompanying materials could be sold for about $200 per set. With the exception of the SDS, all the materials that make up our "career planning program for the visually disabled," could be produced by any college, high school, or rehabilitation career center at a fairly low cost, especially if volunteers could be utilized in the manner we have described throughout this report.

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APPENDIX A

Advisory Committee

ADVISORY COUNCIL MEMBERS

Greg Paul, District Director, Division of Blind Services

Neal Berger, Project Director, A Science-Oriented Career Guidance System for the Physically Handicapped

Dr. Jack Huchinson, Director, Office of Vocational Rehabilitation

Purvis Ponder, Assistant Professor, Visual Disabilities, Florida State University

Colonel Robert Shoemaker, Director, Career Placement Services, Florida State University

Darlene Stutts, Coordinator, Disabled Student Services, Florida State University

Paul Nolting, VR Counselor, Division of Blind Services

Dr. Gerald Jahoda, Professor, Library Science, Florida State University

Victor Brown, Student, Florida State University

Carl McCoy, Program Director, Division of Blind Services

Jim Phipps, Student, Florida State University

Mrs. Kathryn Sutusky, Office of the President, Florida State University

Mr. Jess E. Wilson, Lions Club

Dr. Jeanne Boland, Assistant Professor, Rehabilitative Services, Florida State University

Bob Straughn, Warning Officer, Disaster Control

TENTATIVE STATEMENT

CCIS Grant Funded Project

Role and Scope of Advisory Council

NAME:

The name of this advisory council shall be the CCIS Grant funded project advisory council.

PURPOSE:

The basic purpose of this council shall be to advise the CCIS grant funded project staff in formulating a high quality Self-Directed Career Planning program for blind youth and adults

More specifically, the advisory council will be asked to:

A. Review all program activities involving materials production or distribution.
B. Advise project staff regarding the field testing of project developed materials.
C. Discuss issues related to the development of a Self-Directed Career Planning program for the visually disabled.
D. Assist project staff in describing or explaining the CCIS grant funded project to various constituent groups in the state of Florida.

MEMBERSHIP:

Membership of the advisory council shall consist of active members who will attend at least three consecutive regular meetings. Members are appointed to the advisory council by the Principal Investigator of the grant project, Dr. Robert Reardon. Membership appointments shall be for the duration of the grant funded project which is one year.

Members of the advisory council were selected according to several criteria:

1. Representatives from the business, labor and industry communities.
2. Representatives of blind students at Florida State University.
3. Representatives from Office of Blind Services, Vocational Rehabilitation

and other professional agencies.

4. Representatives of the faculty at Florida State University or others with special expertise in the development of information systems, self-directed instructional programs or other areas.

MEETINGS:

The advisory council will meet monthly and all meetings are open to the public. A quarrum of members shall consist of all members in attendance at a regular or properly called meeting. The normal meeting place will be the CCIS center in Room 110, Bryan Hall, Florida State University. Normal meeting date will be the first Tuesday of the month, however, special meetings may be scheduled at least two weeks prior to the meeting date. All members will be notified in writing and by phone before each meeting is held.

ADMINISTRATION:

The advisory council will function under the leadership of the CCIS grant funded project director, Mr. Paul White. As Executive Secretary of the advisory council, he will preside over all council meetings, appoint all committees which may be deemed necessary and will prepare an agenda or program for each advisory council meeting. Grant funded project staff under the Executive Secretary's direction will prepare minutes or summaries of all council meetings, will handle all correspondence for the advisory council and assist in the preparation and publication of an agenda for the meeting.

COMMITTEES:

The Executive Secretary of the council may appoint adhoc committees from time to time to review special materials and/or examine special issues in their area of expertise. These adhoc committees or members of the advisory council will report to the project staff and/or to the advisory council on all matters related to their assignments.

APPENDIX B

Module Instruction Sheets

CURRICULAR-CAREER INFORMATION SERVICE (CCIS)

Module I-z

CCIS INFORMATION

EVERYTHING YOU'VE ALWAYS WANTED TO KNOW ABOUT CCIS

The purpose of CCIS is to assist you in developing academic and/or career decision-making skills.

OBJECTIVES

1. To introduce you to CCIS.

2.. To help you select the activities in CCIS that will be most helpful in your career and/or academic decision-making.

BELOW ARE THE ACTIVITIES TO HELP YOU TO ACHIEVE THESE OBJECTIVES

DO ANY OR ALL OF THEM.

A. Listen to a 10-minute audiotape presentation, "CCIS Introduction," which describes CCIS.

B. Ask the proctor to explain the CCIS program to you.

C. Browse through CCIS and examine some of the materials and resources available for your use.

If you need any information, please consult with the proctor at the Help Desk.

CURRICULAR-CAREER INFORMATION SERVICE (CCIS)

Module II-z

GUIDELINES FOR CAREER DECISION-MAKING

WHAT'S INVOLVED IN MAKING A CAREER DECISION?

OBJECTIVES

1. To help dispel common misconceptions about career planning.

2. To help you identify many new variables that are important to consider in career development.

3. To help you establish some guidelines for the process of career decision-making.

BELOW ARE ACTIVITIES TO HELP YOU ACHIEVE THESE OBJECTIVES. DO ANY OR ALL OF THEM.

A. Listen to the fifteen-minute audiotape marked 'A', "Old Wives' Tales in Career Decisions."

B. Listen to the audiotape marked 'B', "Are You An Occupational Ignoramus? Most Students Are!...And It's A Risky Business."

C. Listen to a fifteen-minute audiotape marked 'C', "Dissecting A Career Decision."

Module II-z Cont.

D. Listen to chapter 5 of Richard Boles' audiotaped book, What Color Is Your Parachute? (The two tapes which make up this chapter are marked 'D')

MORE INFORMATION ABOUT CAREER DECISION-MAKING CAN BE FOUND IN THE FOLLOWING AUDIOTAPED BOOKS:

-Richard Boles', What Color Is Your Parachute?

-Richard Irish, Go Hire Yourself An Employer

-David Campbell, If You Don't Know Where You're Going You'll Probably End Up Somewhere Else

-Fred Crawford, Career Planning for The Blind

IF YOU NEED ANY HELP, PLEASE CONSULT WITH THE PROCTOR AT THE HELP DESK.

CURRICULAR-CAREER INFORMATION SERVICE (CCTS)

Module III-z

SELF-ASSESSMENT

LOOKING AT YOUR INTERESTS

OBJECTIVES

1. To provide you with the opportunity for self-assessment; that is, to examine some of the values and interests you have.

2. To help you to identify some occupations or fields of study for further exploration.

THE INFORMATION PROVIDED BELOW WILL HELP YOU ACHIEVE THESE OBJECTIVES. PLEASE READ IT CAREFULLY.

A. The Self-Directed Search (SDS) audiotape is located in the box marked "Module III." It is a self-administering instrument designed for assessing personal interests and values.

The Self-Directed Search does not tell you what you should be or predict what you may be successful in, but only suggests possible areas you might investigate further.

Module III-z Cont.

The SDS is self-explanatory and can be self-scored.

Several of the SDS Summary Codes do not have occupations listed under them. Do not be alarmed if your Summary Code is one of these. Follow the instructions to obtain a list of occupations related to your Code. If you would like to talk to someone about this, see the person at the Help Desk.

B. Listen to the audiotape also in the box marked "Module III," "Understanding Yourself And Your Career," and on the flip side, "Suggested Follow-up Activities."

WHEN YOU HAVE FINISHED TAKING THE SDS, YOU MAY WANT TO USE MODULE IV-z TO HELP YOU USE THE INFORMATION AVAILABLE IN CCIS.

CURRICULAR-CAREER INFORMATION SERVICE (CCIS)

Module IV-z

OBJECTIVE:

To help you locate CCIS information related to your curricular and career planning needs.

ACTIVITIES TO HELP YOU ACHIEVE THIS OBJECTIVE.

Listen to the audiotape marked, "Module IV-z". This tape explains the location of materials on the two study carrels especially equipped for people with visual disabilities.

Listen to the audiotape marked, "Catalogue Instructions" in the Module IV box or read the large print or braille "Catalogue Instructions" located with the other print materials.

If you have any difficulties locating any materials, or if there are materials which are not located in this area which you wish to use, please ask the proctor at the Help Desk to assist you.

CURRICULAR-CAREER INFORMATION SERVICE (CCIS)

Module V-z

LINKING EDUCATION AND WORK

MATCHING MAJORS AND JOBS

OBJECTIVES

1. List specific job titles related to college majors or fields of study.

2. Identify postgraduate, graduate and technical training sites for fields of study or specific jobs.

BELOW ARE ACTIVITIES TO HELP YOU ACHIEVE THESE OBJECTIVES.

A. Listen to the audiotape in Module box '5-A' entitled, "What Can I Do With A Major In...?"

B. Listen to the taped interviews about F.S.U. majors made with the academic program directors of most of the undergraduate major programs. A brailled and printed list of the F.S.U. majors on tape is in the notebook marked "Module V-z."

C. Consult with academic departments and their program people. An audiotape list is located in the box marked "Module 5."

Module V-z Cont.

D. Consult with career planning specialists and the Office of Career Placement Services and Cooperative Education Services.

E. Refer to the printed book, The College Guide for Students With Disabilities, by Golloway and Bennet. Ask the proctor at the Help Desk for this book.

FOR ASSISTANCE IN USING ANY OF THE RESOURCES IN CCIS, CHECK WITH THE PROCTOR AT THE HELP DESK.

CURRICULAR-CAREER INFORMATION SERVICES (CCIS)

Module VI-z

EMPLOYMENT OUTLOOK

JOB FORECASTS AND YOUR CAREER PLANS

OBJECTIVES

1. Describe the present distribution of workers in different job areas, e.g. sex, race, etc.

2. Describe the projected employment trends in various career fields.

3. Understand the complexity and accuracy of employment forecasting.

4. Identify the lowest and highest employment demand areas.

BELOW ARE ACTIVITIES
TO HELP YOU ACHIEVE THESE OBJECTIVES.

A. Listen to the audiotape in the box marked "Module 6", "Supply And Demand of College Graduates In The South, 1980, by Field of Study."

B. Listen to the audiotape in the "Module 6" box, "U.S.D.O.L. Occupational Forecast, 1978-1985."

Module VI-z Cont.

C. Listen to the audiotape in the same box, "Job Forecast Information."

D. Consult with the staff in Career Placement Services (228 Bryan) and Cooperative Education Services (116 Bryan).

YOU MAY WANT TO SCAN THE FOLLOWING PRINTED MATERIAL:

Handbook of Labor Statistics
DDC 331.06 U5

Occupation Manpower and Training Needs
DDC 331.1 U5

The Occupational Outlook Handbook
DDC 331.12 015

Chapter 5, Handbook on Women Workers
DDC 331.4 U53

New Job Opportunities for Women
DDC 331.4 L4

FOR ASSISTANCE IN USING OUTLOOK INFORMATION IN THIS MODULE IN YOUR CAREER PLANNING, YOU MAY WANT TO CONSULT WITH THE PROCTOR AT THE HELP DESK.

CURRICULAR-CAREER INFORMATION SERVICES (CCIS)

Module VII-z

ESPECIALLY FOR MINORITIES

This module has been prepared especially for black students, women, and disabled students, who may want to explore special topics relevant to their career planning. The purpose is to spotlight CCIS resources which might be useful in this exploration.

OBJECTIVES

1. To assist you in locating sources of information which will help you shape a tentative educational and/or career plan.

2. To help you examine how nearly your personality and/or interest patterns match people in various careers.

BELOW ARE ACTIVITIES
TO HELP YOU ACHIEVE THESE OBJECTIVES.
DO ANY OR ALL OF THEM.

Each of the tapes may be found in the box marked "Module 7."

A. Listen to the audiotape on "Affirmative Action: Implications for Career Planning," featuring Dr. Freddie Groomes, Assistant to the President, F.S.U.

Module VII-z Cont.

B. Listen to the audiotape, "Career Planning for Black College Students" featuring Mr. C. C. Cunningham, Placement Director, FAMU, and Mr. Robert Shoemaker, Placement Director, F.S.U.

C. Listen to the audiotape, "Career Planning for Blacks."

D. Listen to the audiotape, "Increasing Job Options for Women."

E. Listen to the audiotape, "Life Career Patterns of Women" in which several adult women discuss their different lifestyles.

F. Listen to the audiotape, "Women in The Work Force."

G. Listen to the taped interviews with visually disabled persons in various career settings.

H. Listen to the audiotaped Occupational Information Library for The Blind.

FOR ASSISTANCE IN USING ANY OF THE MATERIALS DESCRIBED IN THIS MODULE, CHECK WITH THE PERSON AT THE HELP DESK.

CURRICULAR-CAREER INFORMATION SERVICE (CCIS)

Module VIII-z

AFFIRMATIVE ACTION AND DISABLED PEOPLE

THE FEDERAL MANDATE AND HOW IT AFFECTS YOU

OBJECTIVES

1. To give you information about your rights, and who you can get in touch with for help.

2. The responsibilities of schools, universities and employers in equal opportunity employment.

HOW TO USE THIS MODULE

Listen to the audiotape in the box marked "Module 8." It describes all of the materials in the file marked "Module 8." Included among those materials are copies of the federal guidelines for Section 503 "Equal Employment" and 504 "Facility and Program Accessibility." The file also includes fact sheets on Sections 503 and 504, complete descriptions of the legislation, and the complete form of the 1973 Rehabilitation Act.

FOR ASSISTANCE IN USING ANY OF THESE MATERIALS DESCRIBED IN THIS MODULE, CHECK WITH THE PERSON AT THE HELP DESK.

CURRICULAR-CAREER INFORMATION SERVICE (CCIS)

Module IX-z

EMPLOYABILITY SKILLS

The activities presented in this module are designed to help you master the "employability skills" essential in transforming your career goals into reality.

OBJECTIVES

1. You will be able to write a resume appropriate for your job objective.

2. You will be able to write an appropriate letter pertaining to your job campaign.

3. You will be able to identify and complete strategies for pre-interview preparation.

4. You will be able to identify and demonstrate effective interviewing behaviors.

BELOW ARE A LIST OF ACTIVITIES TO HELP YOU WITH THESE OBJECTIVES. THE TAPES CAN BE FOUND IN THE BOX MARKED "Module S."

A. Listen to the audiotape, "The First Hour of the Rest of Your Life: The Art of Locating and Selecting the Right Career."

Module IX-z Cont.

B. Listen to the audiotape, "Resume Writing Guide."

C. Listen to the audiotape, "Letter Writing Guide."

D. Listen to the audiotape, "Interview Guide."

E. Listen to the audiotape, "Interview Questions."

F. Listen to the audiotape, "Questions for Disabled People."

G. Listen to the audiotape, "Campus Interview."

FOR HELP WITH ANY PART OF THIS MODULE, OR FOR ADDITIONAL INFORMATION ABOUT OTHER SERVICES CCIS HAS TO OFFER AROUND EMPLOYABILITY SKILLS, ASK THE PROCTOR AT THE HELP DESK.

THE CURRICULAR-CAREER INFORMATION SERVICE (CCIS)

Module X-z

CAMPUS AND COMMUNITY RESOURCES

WHERE DO YOU GO FROM HERE?

The activities presented in this module are designed to be extensions or additions to the information materials described in previous modules.

OBJECTIVES:

1. Identify people and places in the University where you can get further, more specialized career development assistance; and

2. Identify experiences outside the University related to a career possibility you are considering.

The instructional activities in this module are of a varied nature. Some can be completed in a few minutes, others can take months; some can be done in CCIS, others involve explorations in the community or in the University. One of the basic CCIS resources to which this module makes reference is filed information (Module X folder) about various career development resources. It is located in a Mobile File; ask the Proctor for help finding this material.

Module X-z Continued

An up-to-date listing of activities and University and Community resources is located on the tape marked "Module X-z".

APPENDIX C

35 Occupational Clusters Representing Over 50% of the Work Force

THE 35 LARGEST OCCUPATIONS WHICH TOGETHER EMPLOY OVER HALF OF THE WORKERS IN THE UNITED STATES

	Occupations:	Total Employment:
1.	salespersons and salesclerks, n.e.c.	4,019,531
2.	salaried managers and administrators	2,594,653
3.	secretaries, excluding legal and medical	2,550,251
4.	elementary and secondary school teachers	2,415,424
5.	foremen, n.e.c.	1.590,427
6.	bookkeepers	1,534,768
7.	farmers and farm managers	1,418,746
8.	truckdrivers	1,379,625
9.	janitors and sextons	1,225,672
10.	private household workers	1,145,895
11.	waiters	1,019,400
12.	machine operatives, miscellaneous specified	1,019,191
13.	typists	977,446
14.	assemblers	943,907
15.	self-employed managers and administrators	895,346
16.	sewers and stitchers	867,402
17.	carpenters	842,341
18.	registered nurses	829,691
19.	cooks, except private household	828,977
20.	cashiers	823,512
21.	not specified clerical workers	807,244
22.	automobile mechanics	804,772
23.	clerical and kindred workers--allocated	757,209
24.	farm laborers, wage workers	743,219
25.	nursing aides, orderlies and attendants	717,968
26.	operatives, except transport--allocated	717,374
27.	service workers excluding private household--allocated	705,323
28.	accountants	703,546
29.	checkers, examiners, inspectors; manufacturing	690,173
30.	miscellaneous, operatives	630,430
31.	craftsmen and kindred workers--allocated	626,534
32.	deliverymen and routemen	620,300
33.	stock handlers	586,107
34.	heavy equipment mechanics, including diesel	582,475
35.	machine operatives, not specified	566,696

This table was prepared by:

Mr. William Devo
Taborton Road
Sand Lake, New York 12153

APPENDIX D

Career planning resources
made available or accessible
to F.S.U. blind students
through the grant project

includes scripts of
several tapes produced by
the project staff

CAREER PLANNING MATERIALS NOW AVAILABLE IN CCIS FOR VISUALLY DISABLED STUDENTS AT FLORIDA STATE UNIVERSITY

Occupational Interviews and Occupational Briefs:

Fifty of the tapes listed below were produced by the project staff. The remaining tapes were previously purchased by CCIS. All tapes have been duplicated (with permission when necessary) and labeled with large print and braille.

Account Executive
Accountant
Actor
Actuary
Advertising Manager
Agricultural Engineer
Airplane Mechanic
Air Traffic Controller
Anthropologist
Architect
Artist, Commercial
Astronomer
Auto Mechanic
Bank Clerk
Bank Officer
Bank Teller
Banker
Beautician
Broadcaster
Broadcasting Technician
Business Administrator
Business Consultant
Buyer
Career Planning and Placement Counselor
Child Psychologist
Chiropractor
Civil Engineer
Claim Representative
Clinical Psychologist
Collection Worker
Community College Administrator
Computer Operating Personnel
Computer Programmer
Construction Inspector
Consumer Finance
Copywriter
Cosmetologist
Cost Analyst
Court Reporter
Criminologist

Dental Hygienist
Dentist
Dietician
Driver Salesman
Economist
Editor
Electrician
Electronic Assembler
Electronic Technician
Employment Counselor
FBI Agent
File Clerk
Fireman
Flight Attendant
Forrestry
Geophysicist
Golf Professional
Guard
Health and Regulatory Inspector
Health Fields
Historian
Home Economist
Hotel Front Office Clerk
Hotel Manager
Hotel-Motel Service Worker
Insurance Careers
Insurance Representative
Insurance Salesman
Investment Analyst
Landscape Architect
Law Enforcement
Lawyer
Librarian
Life Scientist
Marketing Research Worker
Mechanical Engineer
Medical Technologist
Medicine
Meteorologist
Military Personnel
Minister
Model, Fashion
Music Careers
Music Teacher
Nurse, Psychiatric
Occupational Therapist
Oceanographer
Officeworker
Park Director
Passenger Agent
Pediatrics
Penologist
Personnel Counselor
Pharmacist
Photographer
Physical Therapist
Physician

Physicist
Pilot
Podiatrist
Policewoman
Political Scientist
Priest, Catholic
Principal, High School
Printer
Probation Officer
Professor
Purchasing Agent
Realtor
Receptionist
Record Producer
Recreation Worker
Rehabilitation Counselor
Religious Sister as a Teacher
Reporter
Research Scientist
Respiratory Therapy Worker
Sales Careers
Salesman
School Counselor, Elementary
Secretary
Social Psychologist
Social Service Administration
Social Worker
Special Education Teacher
Stenographer
Stewardess
Stock Broker
Systems Analyst
Teacher, Physics, High School
Teaching Assistant
Telephone Operator
Theater Worker
Theatrical Agent
Ticket Agent
Tool and Dye Maker
Typist
Underwriter
Veterinarian
Waiter
Watchman
Writer, Technical

Career Planning Books on Tape:

Permission has been granted by the publishers of all the printed media transcribed onto audiotape.

BOLES, Richard N., What Color Is Your Parachute?
Berkeley, California, Ten-Speed Press, 1977.

CAMPBELL, David, If You Don't Know Where You're Going
You'll Probably End Up Somewhere Else
Niles, Illinois, ARGUS Communications, 1974.

CRAWFORD, Fred L., Career Planning for the Blind
Winnetka, Illinois, Hadley School for the Blind, 1966.

Other Career Planning Materials Available:
(arranged according to module number)

All the materials listed below were produced by the CCIS or grant project staffs unless noted otherwise. Permission was granted by the publisher in each instance of reproduction of copyrighted material.

Module 1: CCIS Introduction
Audiotape: "CCIS Introduction"

Module 2: Guidelines for Career Decision-Making
Audiotapes: "Old Wives' Tales In Career Decisions"
"Are You An Occupational Ignoramus?
Most Students Are...and It's A Risky Business"--
transcribed with permission from the publisher.
"Dissecting A Career Decision"

Braille and Large Print: "Dissecting A Career Decision Studyguide"

Module 3: Self-Assessment
Audiotapes: "Self-Directed Search (SDS) Instructions"
"Understanding Yourself and Your Career"--
transcribed with permission from publisher.

Braille and Large Print: "Answer Sheets for the Self-Directed Search"

Module 4: Information Sources
Audiotapes: "How To Find Information in CCIS"

Module 5: Linking Education and Work
Audiotapes: "Faculty Resource Directory"
"What Can I Do With A Major In...?"--
transcribed with permission of publisher.
"What Can I Be? Careers for College Majors"--
transcribed with permission from publisher.
"F.S.U. Majors on Audiotape"
Interviews with F.S.U. faculty about the majors they represent. Produced by CCIS staff. Questions include the following: How does the faculty member describe this major? What areas of specialization are available to students in this major? What traits make it likely (or unlikely) that

a student will succeed in this area? What do students like most about this major? What prior experiences might help a student determine whether or not to major in this area? What occupations or postgraduate programs do students enter? What is the job outlook for graduates of this program? Are there special opportunities for women, minorities, the handicapped? What is the student-faculty ratio? Why did the faculty member enter this field and what are the personal satisfactions from work in it?

Each of the following majors are represented in this series:

Accounting
Anthropology
Art Education
Audiology and Speech Pathology
Biological Sciences
Chemistry
Childhood Education
Clothing and Textiles
Constructive Design
Counseling, Health and Rehabilitation
Criminology
Dance
Economics
English
Finance
Food and Nutrition
French
Geology
Government
History
Home and Family Life
Home Economics Education
Hotel and Restaurant Administration
Industrial Arts Education
Interior Design
Leisure Services and Studies
Library Science
Management
Management and Insurance
Marketing
Mass Communications
Mathematics
Meteorology
Modern Languages
Music
Nursing
Oceanography

Physical Education
Physics
Pre-Law
Program in Medical Sciences
Psychology
Real Estate
Religion
Risk and Insurance
Social Work
Sociology
Special Education
Statistics
Studio Art
Theater
Urban and Regional Planning
Vocational Education

Module 6: Employment Outlooks
Audiotapes: "Looking Ahead to A Career"--transcribed with permission of publisher.
"Supply and Demand of College Graduates in The South, 1980, by Field of Study"--transcribed with permission of publisher.

Module 7: Especially for Women and Blacks
Audiotapes: "Career Planning for Black College Students"
"Expanding Job Options for Women"--transcribed with permission of publisher.
"Women in the Work Force"
"Affirmative Action: Implications for Career Planning"
"Life Career Patterns of Women"

Module 8: Affirmative Action and Disabled People
Audiotape: "Highlights of Section 504: Implications for Career Planning"

Braille and print: Sections 503 and 504 of the 1973 Rehabilitation Act

Module 9: Employability Skills
Audiotapes: "Interview Preparation"
"Resume Writing"
"Application Letter writing"
"The First Hour of the Rest of Your Life"--transcribed with permission of publisher.
"Interview Questions Often Asked of the Handicapped Job Seeker"

Module 10: Where Do You Go From Here?
Audiotape: "Where Do You Go From Here?"

SCRIPT FOR THE CCIS INTRODUCTION AUDIOTAPE

Welcome to CCIS--the Curricular-Career Information Service. We are pleased that you are here, and hope that what we have created will be helpful to you. In the next few minutes, I am going to briefly describe CCIS--what we are, how we can help you, and when you might use us, but first, let's look at some typical career planning concerns.

As a student, you may have questions about the relevance of your education to your future. In what ways will your choice of an academic major affect your career goals? What criteria might you use in selecting your major or career? What different things can you do with the same major? What kinds of special aptitudes or values do you need to succeed in a major or career? Where can you get help in career decision-making? Answers to these questions and many others are available in CCIS.

So, what is CCIS? Well, first of all, it is a place where facts about majors, jobs, careers, etc., are collected and organized. It is a kind of library, a clearinghouse for curricular and career information that may save you needless footsteps. Second, CCIS is a place where you can look at yourself--your interests, goals, abilities, and values. Third, CCIS is a place where people--trained student assistants and career guidance specialists--are available to help you. While they are not here for a long-term counseling contact, they can listen, offer suggestions and assist you in using our resources. Finally, CCIS is a place where a variety of materials, audiotapes, books, pamphlets and other media are utilized to help you learn more about yourself, your vocational or avocational future, and the career decision-making processes. What is CCIS? In summary, it is a place where information about fields of study, and careers available to students all come together.

Now that we've briefly focused on what CCIS is, we can explore how and when you can use it. You can start with any one of the modules which is of interest to you. If you are undecided about a major or career or have some very tentative ideas, you should start at the beginning with Modules I, II, and III. Right now, you are in Module I, "CCIS Introduction." In Module II, "Career Decision-Making," you can get pointers on improper assumptions students often make when selecting their majors, and learn a method of making curricular or career decisions. Module III, "Self-Assessment," can help you examine your interests and values related to career decision-making. A career planning inventory, The Self-Directed Search (SDS), is included in this module. The SDS can be scored and interpreted by you without the aid of a counselor. Module IV, helps you locate and use various kinds of educational and career information. Our goal here is to put you in contact with every bit or piece of good data which

you can use in planning your future. Module V, can help you identify jobs related to career majors and Module VI, can help you understand job forecasts that may affect your career planning. Modules VII and VIII, are especially designed to help meet some of the unique career planning concerns of the handicapped, blacks, and women. Module IX, is designed to help you get the job you want. Upon completion of the activities in this module, you will be able to write a resume, draft a cover letter, and identify good and bad job interview behavior. Module X, will provide you with information about other resources on and off campus that might be of assistance in meeting your career and curricular planning needs.

In summary then, you can use CCIS pretty much when and how you wish. You can browse leisurely or you can actively involve yourself in self-instructional activities through the modules. Either way, you will be exercising your freedom to chart your future in a responsible way.

A footnote to this presentation can be added here. We want to be on target. Evaluation is a very important part of CCIS. We are eager to develop a program and materials that can help students in their educational/vocational development, planning, and decision-making. Please take the extra bit of time to share your reactions when they are requested.

Module IV-z

This tape describes the location of career planning materials which have been especially designed for use by visually disabled students. Most of the materials are located at the study carrel you are seated at now or the study carrel next to you. For the sake of clarity, we will label them study carrels 1 and 2. Study carrel 1 is located to the left of study carrel 2. The information on this tape will be more useful to you if you first listen to the CCIS Introduction tape which gives an outline of the kinds of resources available to you. This tape is located in the box marked "Module I" at the rear of study carrel 1. Stop this tape now and listen to the introductory tape if you have not already done so.

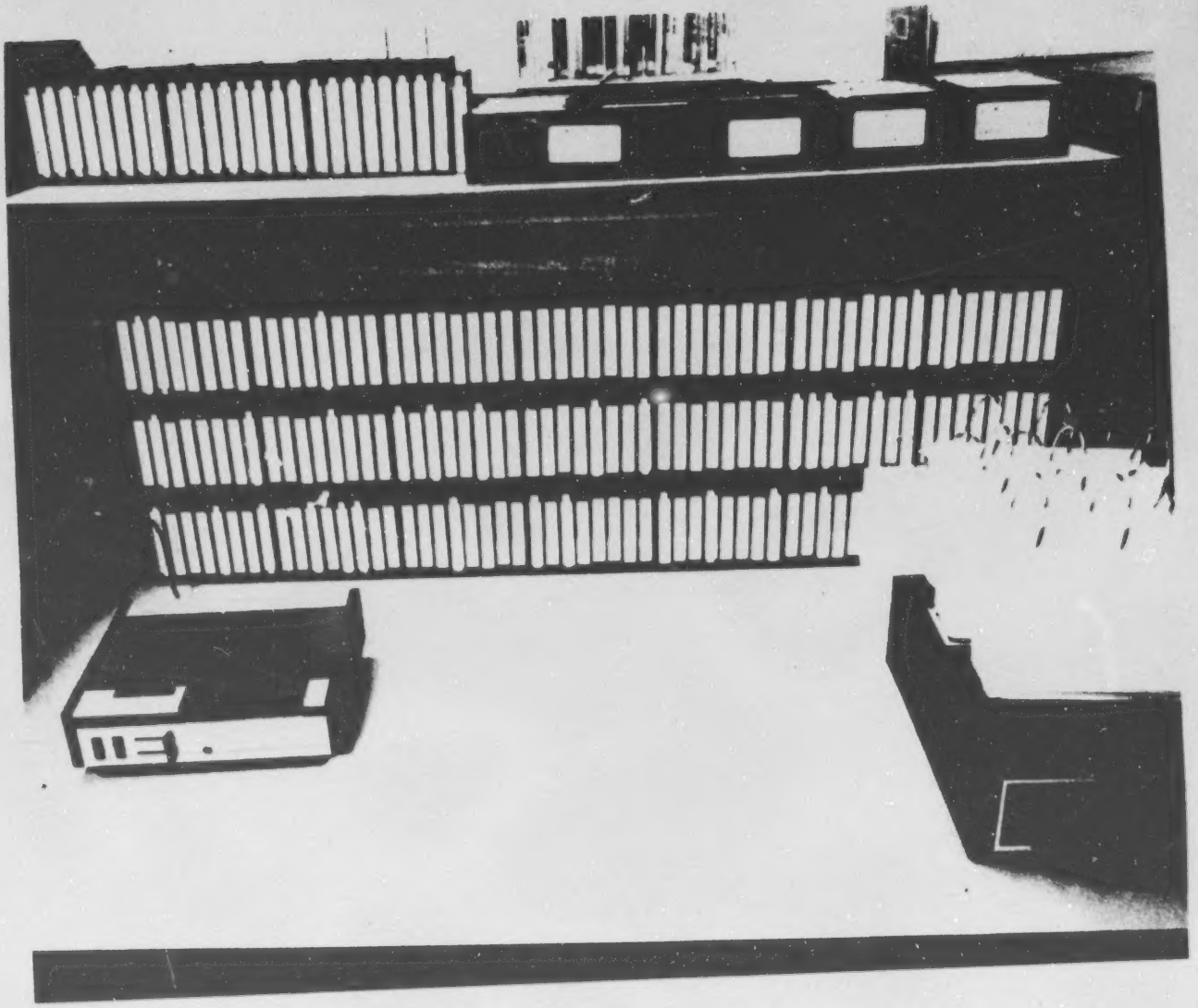
As explained in the introductory tape, the information available to you in CCIS is divided up into ten instructional modules. A large print and a braille CCIS Modules notebook are located at the front of the file shelf which is on the righthand side of study carrel 1. All other print and braille materials mentioned in the CCIS Modules notebook are located on this same shelf in numerical number according to the modules they represent.

Other materials on study carrel 1 include: the tape recorder which is in the center of the work area, a telephone which is at the lefthand front of the work area, a brailler which is at the lefthand rear of the work area, boxes of tapes corresponding to the different modules at the rear of the work area, and taped interviews with faculty members to discuss F.S.U. majors located on the shelf at the top of the back wall of study carrel 1.

Study carrel 2 also contains a cassette tape recorder located at the lefthand side of the work area. Against the back wall of study carrel 2 are over 200 careers on tape arranged in numerical order. On the righthand side of study carrel 2 at the front of the work area you will find a box of tapes with the label Occupational Information Library for the Blind or OILB. The 35 tapes in this box contain approximately 600 brief career descriptions of jobs being successfully performed by blind men and women.

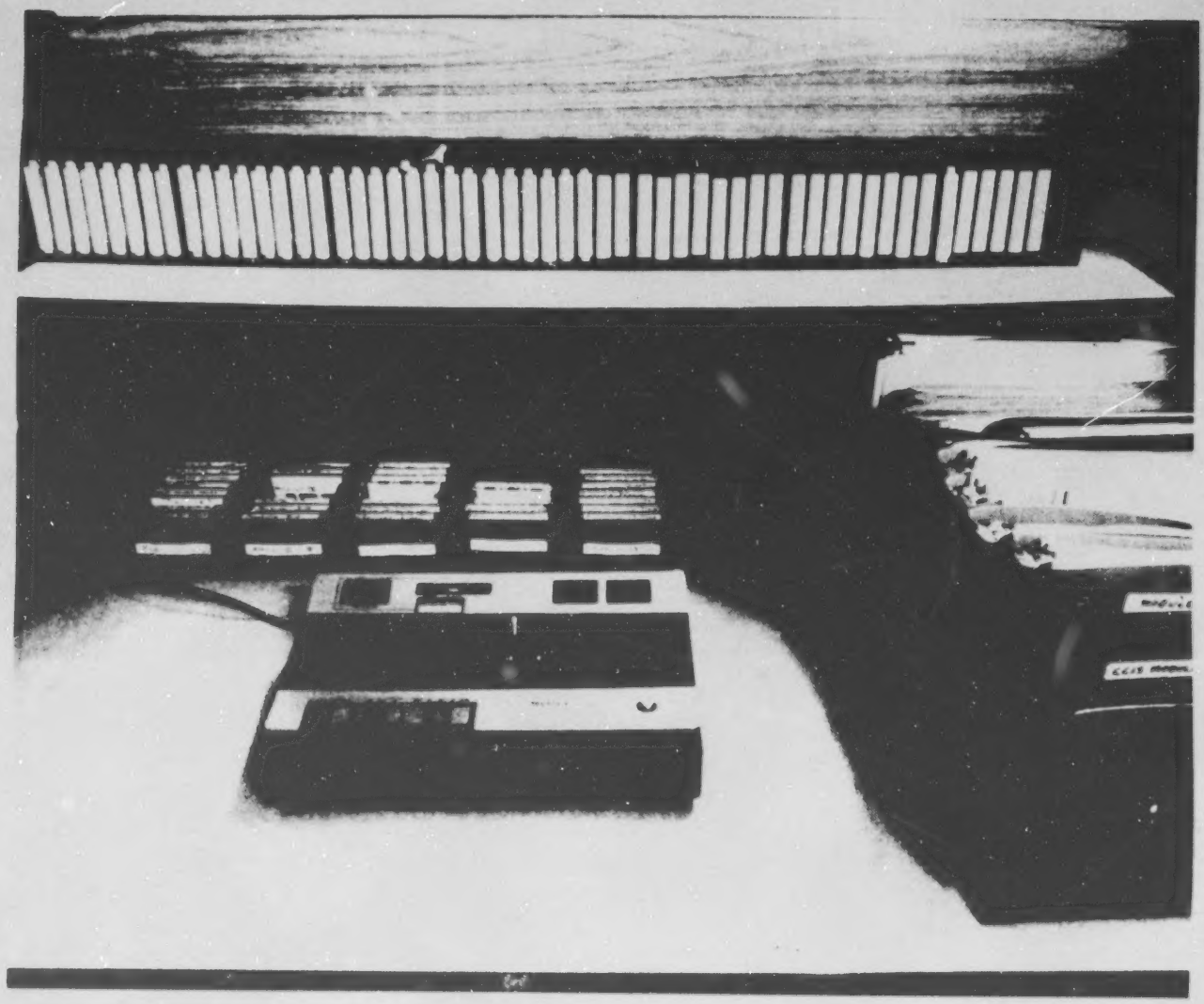
Immediately behind the OILB tapes, you will find two catalogues with all of the careers in our Careers on Tape and the OILB Libraries listed in alphabetical order. One catalogue is braille, the other is large type. Instructions for using these catalogues are available in braille, large type, and audiotape formats. The large type and braille notebooks labeled "Module IV Career Catalogue Instructions" are located with the other print materials on study carrel 1. The audiotape labeled "Catalogue Instructions" is located in the "Module IV" box on study carrel 1.

On the top shelf at the rear of study carrel 2, you will find two sets of tapes. On the left are taped interviews with blind persons working in a variety of occupations. On the right are four career planning books on tape: What Color Is Your Parachute?, by Richard Boles; Go Hire Yourself An Employer, by Richard Irish; If You Don't Know Where You're Going, You'll Probably End Up Somewhere Else, by David Campbell; and Career Planning for the Blind, by Fred Crawford. If you are unable to find information concerning a career that interests you in our audiotape library, ask a proctor to look in the print library for you. If the information you need is located there you may have a reader take the material to the Blind Services lab in 115 Bryan to tape it for you. No materials may be removed from Bryan Hall, however. When materials are taken from CCIS to be used in the lab, you must leave your student I.D. card with the proctor at the help desk until the materials are returned. If you have any questions about using the materials on study carrels 1 and 2 or elsewhere in CCIS, please ask a proctor to assist you.



This is carrel No. 2. It contains information about 600 different careers in interview and occupational brief format. It includes the Occupational Information Library for the Blind (OILB) which describes many different jobs being successfully performed by blind men and women. The top shelf is filled with four popular career planning books on cassette tape and 25 interviews with blind persons in nonstereotypic careers. The large print and braille catalogues are located at the right of the carrel.

This is carrel No. 1. It contains all of our large print and braille materials, such as the Resume Writing and Interview Preparation guides, copies of the 504 Regulations, and introductory materials. The tapes behind the recorder correspond to the instructional module sheets enclosed in this packet of materials. The tapes on the shelf at the top of the carrel are audiotaped interviews with faculty members who discuss F.S.U. majors.



SCRIPT FOR THE SELF-DIRECTED SEARCH

The Self-Directed Search or SDS consists of the following materials: the tactile board in front of you, the audiotape of the instructions to the left of the tactile board, the Occupations Daydreams Notebook and Occupations Finder at the top of the board and three answer sheets to the right of the tactile board. These answer sheets are entitled: Occupational Daydreams, Summary Sheet I, and Summary Sheet II. If you have any questions now or while completing the SDS, ask the proctor at the Help Desk to assist you.

The Self-Directed Search may help you explore what occupation to follow. If you have already made up your mind about an occupation it may support your idea or suggest other possibilities. If you are uncertain about what occupation to follow, the SDS may help you to locate a small group of occupations for further consideration. Most people find the SDS is helpful and fun. Do not rush. You will gain more by approaching the test thoughtfully.

The SDS is divided into several different activities or exercises. Some of them must be completed on an answer sheet with a brailler or pencil. Most of the exercises must be completed on the wooden tactile board in front of you. There are small holes in the top half of the board and larger holes in the lower half of the board. Trays containing small pegs and round plugs are located on both sides of the board. A full description of the tactile board and instructions for using it will be presented later in this tape.

The first exercise is called "Occupational Daydreams." Locate your Occupational Daydreams Answer Sheet to the right of the board. This answer sheet has five spaces on it. Using a brailler or pencil, list the occupations you have considered in thinking about your future. List the careers you have daydreamed about as well as those you have discussed with others. Try to give a history of your tentative choices and daydreams. Put your most recent job choice beside the number 1 on your answer sheet, then work backwards to the earlier jobs you have considered. Try not to list more than five occupations. Now stop the tape until you have completed your list.

Now, using the Occupations Daydreams Notebook located at the top of your board, read the instructions on the first two pages. Stop the tape until you have read the instructions.

Now locate the three-letter code for each of the occupations you just wrote down. This search for occupational codes will help you learn about the many occupations in the world. This task usually takes from 5 to 15 minutes. If you can't find the exact occupation in the Occupations Daydreams Notebook, use the occupation that seems most like your occupational choice. When you locate the three-letter code for a given occupation, write it down on the Occupational Daydreams sheet in the space provided to the right of each occupation you listed. If you have any questions or need any help, ask the proctor at the Help Desk to assist you. Now stop the tape until you have completed this exercise.

The next several exercises will be completed on the tactile board in front of you. Before we begin, let's go over the board so you can understand it thoroughly. At the top of the board is the name of this self-directed vocational guidance program: The Self-Directed Search. The rest of the board is divided into two parts. On the top half of the board is a grid or maitrix of small holes. The holes are labeled on the lefthand side of the board with the letters R, I, A, S, E, C. The columns are numbered across the top from 1 to 14.

On the bottom half of the board is another grid, this time of much larger holes. The holes are labeled on the lefthand side according to the different exercises of The Self-Directed Search they represent: Activities, Competencies, Occupations, Self-Estimates I, and Self-Estimates II. The columns are labeled across the top with the letters R, I, A, S, E, C. Notice that there are two holes in the first three columns on the lower half of the board. These columns will be used to keep track of your responses in each exercise. The first hole in each column represents the tens place and the second hole the ones place. The last row in this grid is for totaling your responses. At the very bottom of the board are three holes for recording your Summary Code. Trays containing small pegs for the holes in the top half of the board and small round plugs for the holes in the bottom half of the board are located down both sides of the tactile board. There are seven trays on both sides of the board. The top tray on the left side of the board contains the small pegs which fit into holes in the top part of the board. The second the third trays on the left side contain round plugs labeled with the number 1, the fourth tray contains round plugs with the number 2, the fifth tray contains round plugs with the number 3, the sixth tray contains round plugs with the number 4, the last tray on this side contains six plugs with the letters R, I, A, S, E, C.

On the right side of the board the first tray contains plugs labeled with the number 5, the second tray contains plugs labeled with the number 6, the third tray contains plugs labeled with the number 7, the fourth tray contains plugs labeled with the number 8, the fifth tray contains plugs labeled with the number 9, the sixth tray contains plugs labeled with the number 0, and the last tray on this side also contains six plugs labeled with the letters R, I, A, S, E, C.

The round plugs labeled with numbers are to be used for keeping score on the bottom half of the board and plugs labeled with letters are to be used for identifying your Summary Code at the end of the program. Now stop the tape until you familiarize yourself with the tactile board.

The next exercise of the SDS is titled "Activities." Lists of activities will be read to you. The first list of activities is the R list. There are 11 different activities in this list. For each activity you would like to do, place a peg in the R row at the top of the tactile board. For example, let us suppose you would enjoy doing six of the R activities read to you. Then when the entire list has been read you should have pegs occupying the first six holes in the R row of holes.

Now let's begin. The following is the R list of activities. Remember, place a peg in a hole in the R row for each activity you would like to do.

fix electrical things
repair cars
fix mechanical things
build things with wood
drive a truck or tractor
use metal-working or machine tools
work on a hotrod or motorcycle
take shop course
take mechanical drawing course
take woodworking course
take auto mechanics course

The following is the list of I activities. Place a peg in a hole in the I row for each activity you would like to do.

read scientific books or magazines
work in a laboratory
work on a scientific project
build rocket models
work with a chemistry set
read about special subjects on my own
solve math or chess puzzles
take physics course
take chemistry course
take geometry course
take biology course

Next is the list of A activities. Place a peg in a hole in the A row for each activity you would like to do.

sketch, draw, or paint
attend plays
design furniture or buildings
play in a band, group, or orchestra
practice a musical instrument
go to recitals, concerts, or musicals
read popular fiction
create portraits or photographs
read plays
read or write poetry
take art course

Now the list of S activities. Place a peg in a hole in the S row for each activity you would like to do.

write letters to friends
attend religious services
belong to social clubs
help others with their personal problems
take care of children
go to parties
dance
read psychology books
attend meetings and conferences
go to sports events
make new friends

The E activities are as follows. Place a peg in a hole in the E row for each activity you would like to do.

influence others
sell something
discuss politics
operate my own service or business
attend conferences
give talks
serve as an officer of any group
supervise the work of others
meet important people
lead a group in accomplishing some goal
participate in political campaign

The C activities are as follows:

keep your desk and room neat
type papers or letters for yourself or others
add, subtract, multiply and divide numbers in business or bookkeeping
operate business machines of any kind
keep detailed records of expenses
take typewriting course
take business course
take bookkeeping course
take commercial math course
file letters, reports, records, etc.
write business letters

You have now completed the "Activities" section. Record your positive responses in the following manner before you move on. On the bottom half of the board locate the row of holes to the right of the word "Activities." You will find two holes on this row under each of the six letters listed across the board: R, I, A, S, E, C. Under the column labeled R on the "Activities" row use the round numbered plugs to record the number of positive responses you have made from the list of R activities. This will be equal to the number of pegs you have in the R row at the top of the board. Now count the number of pegs in the R row at the top of the board. Record that number in the two holes in the "Activities" row under the R column. Count the pegs in each of the remaining rows at the top of the borad and record the numbers in the corresponding columns below. Stop the tape until you have finished scoring the "Activities" section.

Before you begin the next exercise, remove all the pegs from the top half of the board. Stop the tape until you have them all removed.

In the next exercise you will record your competencies. Lists of activities will be read to you. For each activity you can do well or competently place a peg in the indicated row. The first list is the R list of activities. Remember, place a peg in a hole in the R row for each activity you can do well or competently.

I have used woodshop power tools such as a power saw or lathe or sander
I know how to use a voltmeter
I can adjust a carburetor
I have operated power tools such as a drillpress or grinder or sewing machine
I can refinish, varnish or stain furniture or woodwork
I can read blueprints
I can make simple electrical repairs
I can repair furniture
I can make mechanical drawings
I can make simple repairs on a TV set
I can make simple plumbing repairs

Now indicate the I activities you do well. Place a peg in a hole in the I row for each activity you can do well or competently.

I understand how a vacuum tube works
I can name three foods that are high in protein content
I can understand the half-life of a radioactive element
I can use logarithmic tables
I can use a slide rule to multiply or divide
I can use a microscope
I can identify three constellations of the stars
I can describe the function of the white blood cells
I can interpret simple chemical formulae
I understand why manmade satellites do not fall to the earth
I have participated in a scientific fair or contest

Now indicate the A activities you do well. Place a peg in a hole in the A row for each activity you can do well or competently.

I can play a musical instrument
I can participate in two- or four-part choral singing
I can perform as a musical soloist
I can act in a play
I can do interpretive reading
I can do modern interpretive or ballet dancing
I can sketch people so that they can be recognized
I can do a painting or sculpture
I can make pottery
I can design clothing, posters, or furniture
I write stories or poetry well

The S activities are:

I am good at explaining things to others
I have participated in charity or benefit drives
I cooperate and work well with others
I am competent at entertaining people older than I
I can be a good host or hostess
I can teach children easily
I can plan entertainment for a party
I am good at helping people who are upset or troubled
I have worked as a volunteer aide in a hospital, clinic, or home
I can plan school or church social affairs
I am a good judge of personality

The E activities are:

I have been elected to an office in high school or college
I can supervise the work of others
I have unusual energy and enthusiasm
I am good at getting people to do things my way
I am a good salesperson
I have acted as leader for some group in presenting suggestions or complaints to a person in authority
I won an award for work as a salesperson or leader
I have organized a club, group, or gang
I have started my own business or service
I know how to be a successful leader
I am a good debater

The C activities are:

I can type 40 words a minute
I can operate a duplicating or adding machine
I can take shorthand
I can file correspondence and other papers
I have held an office job
I can use a bookkeeping machine
I can do a lot of paperwork in a short time
I can use a calculating machine
I can use simple data processing equipment such as a keypunch
I can post credits and debits
I can keep accurate records of payments or sales

You have now completed the "Competencies" section of the SDS. Score it just as you have the "Activities" section. Remember, count the number of pegs in the R row at the top of the board and indicate that number in the corresponding column of the "Competencies" row below. Continue in the same manner until you have scored the number of pegs in each row at the top. When you have scored all six rows, remove the pegs from the top part of the board and continue to the next exercise. Now stop the tape until you have finished scoring this section.

Now you are ready to begin the "Occupations" section of the SDS. This is an inventory of your feelings and attitudes about many kinds of work. Six lists of occupations will be read to you. Show the occupations that interest or appeal to you by placing a peg in the row corresponding to the list being read. For example, we will begin with the R list of occupations. There are 14 different occupations in this list. Place a peg in a hole in the R row for each occupation that interests or appeals to you. The R list is as follows:

airplane mechanic
fish and wildlife specialist
auto mechanic
carpenter
power shovel operator
surveyor
construction inspector
radio operator
filling station worker
tree surgeon
long-distance busdriver
locomotive engineer
machinist
electrician

Now the I list of occupations:

meteorologist
biologist
astronomer
medical laboratory technician
anthropologist
zoologist
chemist
independent research scientist
writer of scientific journals
editor of scientific journals
geologist
botanist
scientific research worker
physicist

The A list of occupations is:

poet
symphony conductor
musician
author
commercial artist
free-lance writer
musical arranger
journalist
portrait artist
concert singer
composer
sculptor or sculptress
playwrite
cartoonist

The S occupations are:

sociologist
high school teacher
juvenile delinquency expert
speech therapist
marriage counselor
school principal
playground director
clinical psychologist
social science teacher
director of welfare agency
youth camp director
personal counselor
psychiatric caseworker
vocational counselor

The E occupations are:

speculator
buyer
advertising executive
manufacturer's representative
television producer
hotel manager
business executive
restaurant manager
master of ceremonies
salesperson
real estate person
publicity director
sports promoter
sales manager

The C occupations are:

bookkeeper
business teacher
budget reviewer
certified public accountant
credit investigator
court stenographer
bank teller
tax expert
inventory controller
IBM equipment operator
financial analyst
cost estimator
payroll clerk
bank examiner

You have now completed the "Occupations" section of the SDS. Score it just as you did the "Activities" and "Competencies" sections. Count the number of pegs in each row at the top of the board and indicate the totals in the corresponding columns of the "Occupations" row below. When you have completed scoring all six rows, remove the pegs from the top half of the board. Stop the tape until you have finished scoring this exercise.

You are now ready to begin the two Self-Estimates exercises. In these two exercises you will use only the first seven holes of each row in the top half of the board. You will place only one peg in each row. You will be rating yourself on a numbered scale ranging from 1 to 7; 1 representing low ability, 4 representing average ability, and 7 representing high ability. Rate yourself on each of the following traits as you really think you are when compared with other persons your own age. Give the most accurate estimate of how you see yourself. Place a peg in the hole representing the approximate number and avoid rating yourself the same in each ability. Remember, rate yourself from 1 to 7. 1 represents low ability, 4 represents average ability, and 7 represents high ability.

In the R row rate yourself in mechanical ability.
In the I row rate yourself in scientific ability.
In the A row rate yourself in artistic ability.
In the S row rate yourself in social ability.
In the E row rate yourself in sales ability.
In the C row rate yourself in clerical ability.

Scoring this exercise will be a little different. Locate the position of the peg in the R row at the top of the board. For example, let's say it's in the fourth position. You will place a round plug labeled number 4 in the R column of the "Self-Estimates I" row on the lower half of the board. Continue in this manner until all six rows

are scored. When you have finished scoring this exercise, remove all of the pegs from the top half of the board. Stop the tape until you are ready to begin the next exercise.

You are now ready to begin the second Self-Estimates exercise. This exercise is just like the previous one. You will be using only the first seven positions in each row and placing one peg in each row. Remember, the peg in the ones position indicates low ability, the fourth position represents average ability, and the seventh position represents high ability. Remember, you are to rate yourself on the following traits as you really think you are when compared with other persons your own age. Give the most accurate estimate of how you see yourself. Place a peg in the hole representing the appropriate number and avoid rating yourself the same in each ability.

In the R row rate yourself in manual skills.
In the I row rate yourself in math skills.
In the A row rate yourself in musical ability.
In the S row rate yourself in friendliness.
In the E row rate yourself in managerial skills.
In the C row rate yourself in office skills.

Score this exercise just like the previous one. Record the position number of the peg in each row at the top of the board in the corresponding column of the "Self-Estimates II" row on the lower half of the board. Stop the tape until you have finished scoring this exercise.

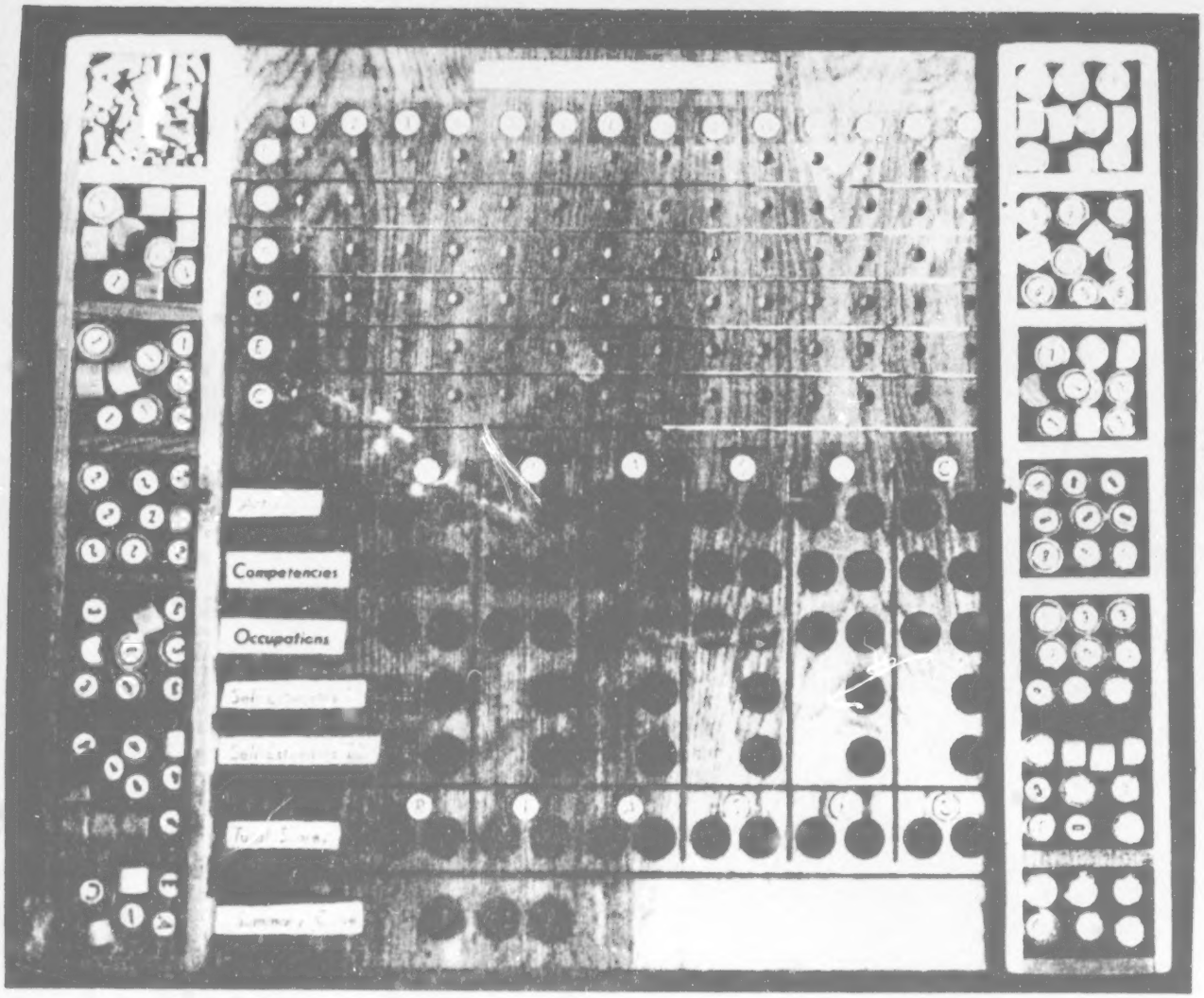
You have now completed all the exercises of the Self-Directed Search. On the lower half of the board you should have five R scores, five I scores, five A scores, etc. Add the scores in each column and place plugs representing the sums in the holes labeled "Total". Stop the tape until you have totaled all six columns. The letters above the columns with the three highest scores indicate your Summary Code. In the last tray on either side of the board locate the round plugs labeled with the letters R, I, A, S, E, C. Pick out the three letters representing your three highest scores and place them in the last three holes at the bottom of the board. Put the letter representing the highest score first and then the second and finally the third. If two scores are the same or tied, put both letters next to each other just below the hole representing their proper position in the Summary Code. Stop the tape until you have indicated your Summary Code in the space provided. If you have any difficulty, ask a proctor to assist you.

Now we will discuss what your Summary Code means. The Summary Code is a simple way of organizing information about people and jobs. Although it is only an estimate, your Summary Code can be used to discover how your special pattern of interests, self-estimates and competencies resemble the patterns of interests and competencies that many common occupations demand. In this way, your Summary Code locates suitable groups of occupations for you to consider. Locate the Occupations Finder at the top of your tactile board. Using this notebook, locate the occupations whose codes are identical to yours. For instance, if your Summary Code is IRE, occupations with codes of IRE are identical with yours. List some of these occupations on the braille or print Summary Sheet I provided to the right of your tactile board. If you do not find an occupation with an identical code, follow the next set of instructions. Otherwise, stop the tape now until you locate your Summary Code in the Occupations Finder and make your list of occupations.

Now make a list of some occupations whose Summary Codes resemble yours. For instance, if your code is IRE, search the Occupations Finder for occupations with all possible arrangements of IRE. Look for occupations with the code of RIE, REI, IER, and ERI. Start by writing down the six possible arrangements of your Summary Code. If your Summary Code includes a tie such as R-IE-A, you must look up more combinations such as RIE, RIA, REA, REI, etc. Now stop the tape until you have completed your list of some occupations whose Summary Codes resemble yours.

You have now completed the Self-Directed Search. Please do not remove the round plugs from the bottom half of the board.

In order to get the most out of The Self-Directed Search, listen to the audiotape, Understanding Yourself and Your Career, by John Holland. This tape is found in the "Module III" box. The tape explains The Self-Directed Search and your personality code further. This concludes The Self-Directed Search.



This is the tactile board version of John Holland's Self-Directed Search which we have developed this year. Using a cassette tape and the board, a blind or partially sighted student can take, score, and interpret this popular occupational inventory without the aid of a counselor or reader.

OCCUPATIONAL DAYDREAMS

1. LIST BELOW THE OCCUPATIONS YOU HAVE CONSIDERED IN THINKING ABOUT YOUR FUTURE. LIST THE CAREERS YOU HAVE DAYDREAMED ABOUT AS WELL AS THOSE YOU HAVE DISCUSSED WITH OTHERS. TRY TO GIVE A HISTORY OF YOUR TENTATIVE CHOICES AND DAYDREAMS. PUT YOUR MOST RECENT JOB CHOICE ON LINE 1 AND WORK BACKWARDS TO EARLIER JOBS YOU HAVE CONSIDERED.

Occupations	Code
1. _____	1___ ___ ___
2. _____	2___ ___ ___
3. _____	3___ ___ ___
4. _____	4___ ___ ___
5. _____	5___ ___ ___

Summary Sheet I

My summary code is: ___ ___ ___

occupations:

Summary Sheet II

Alternate summary codes: __ __ __;

__ __ __; __ __ __; __ __ __

occupations:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

APPENDIX E

Careers on Tape Catalogue Instructions

CATALOGUE INSTRUCTIONS

The catalogue of careers on tape is arranged in alphabetical order. The tapes themselves, however, are arranged numerically. There are two separate sets of occupational tapes. The first set is a collection of interviews with persons working in a variety of occupations and a collection of occupational briefs describing various types of jobs. These tapes are arranged numerically according to their Dictionary of Occupational Title or DOT number. Generally, the DOT number will be six digits with three digits on either side of a decimal point. For example, the DOT number for Music Education Teacher is 152.028. Some of the tapes, however, are labeled with two or three digit DOT numbers. These tapes are more general in nature and cover a broader range of occupations. For example, the tape labeled 152 is titled, "A Career in Music". The second set of career tapes is the Occupational Information Library for the Blind or OILB. The OILB tapes are labeled with their tape and beginning page number. In the catalogue, careers in the OILB collection will be listed with their tape number and actual page number. For example, from the catalogue we find that Court Reporter would be on tape 7, page 73. To locate page 73 easily, check the labels on tapes 7 and 8 for their beginning page numbers. Tape 7 begins on page 60 and tape 8 begins on page 75. Obviously then, page 73 would be located near the end of tape 7.

Many of the careers in this catalogue will have both a DOT and an OILB number. Some occupations listed in the DOT classification will have several tapes under the same DOT number. For example, there are several tapes about a career as a Real Estate Sales Agent. Some of these tapes are interviews with persons working in that field and other tapes are descriptions of the job itself--the nature of the work, the education and training required, the starting salary level and the job outlook for the next several years. If you are interested in a particular career, you should listen to as many of the tapes as your time and schedule will permit. If you have any difficulty locating a tape, ask the proctor at the help desk to assist you.

APPENDIX F

Flyer outlining goals and scope of project

a SELF DIRECTED CAREER PLANNING PROGRAM

for the

VISUALLY DISABLED

"To hunger for use and to go unused
is the greatest hunger of all."
–Lyndon Johnson

INTRODUCTION:

The USOE Office of Career Education has awarded the Florida State University College of Education in conjunction with the Curricular Career Information Service a one-year grant to increase the career planning options and opportunities for the visually disabled.

PURPOSE:

The purpose of this project is to demonstrate through materials development and evaluation, one of the most effective methods and techniques for the career education of a handicapped segment of the population, the visually disabled.

The specific methods and techniques involve adaptations of self-directed approaches to career planning which have been successfully used with sighted college students. Materials and processes from the Curricular Career Information Service (CCIS) at Florida State University will be adapted for use by blind individuals in high schools, community colleges, vocational technical schools, colleges and universities and rehabilitation agencies. In addition, materials and procedures responsive to the unique career planning needs of the visually disabled will be developed and evaluated.

RATIONALE:

Interviews with visually disabled students at Florida State University by Career Planning Services staff members have confirmed that many blind students believe that they have been treated like second-class citizens where careers and jobs are concerned. Their counselors and teachers tend to act as if blind students are incapable of making realistic career plans. Therefore, in a somewhat patronizing manner, these helping professionals take it upon themselves to make most of the career planning decisions for their clients and pupils. This, in

effect, has put the visually handicapped person in the same position blacks and women have found themselves in for years. They are forced into jobs with little or no regard for their interests, values, and abilities. As a result, the blind often find themselves unsatisfied with their jobs and underemployed in "dead-end" jobs.

Total blame for the career planning problems of the visually disabled student, cannot, however, be placed on the shoulders of counselors and teachers. Their methods and attitudes are simply a reflection of society at large. Americans tend to believe that handicapped persons are both pleased and grateful for any kind of work society provides. They tend to believe that boredom and alienation on the job are impossible for a handicapped employee. According to Dr. Kenneth Hoyt of the USOE Office of Career Education:

> "... much of society assumes that, while most persons should seek work compatible with their interests and aptitudes, such considerations are not necessary when seeking to find employment for the handicapped. If *any* job in the world of paid employment can be found for the handicapped person we seem far too often to be personally relieved, and surprised when the handicapped person is anything less than effusively grateful."

It is our hope that, when the work on our project is completed, visually disabled individuals will have a better opportunity to explore, in an uncensored manner, a full range of self-awareness, occupational information, decision-making, and employability skills training approaches. This, we believe, will allow the blind individual to use his counselors and other helping professionals as resources rather than as crutches.

SPECIFIC GOALS:

1. To increase the amount of occupational information available to visually disabled individuals without requiring the use of a reader or counselor to disseminate the information.
2. To provide the opportunity and resources for visually disabled students to increase their decision-making skills especially in regard to career and academic major selections.
3. To provide visually disabled students with the opportunity for self-assessment and to help them identify some occupations or fields of study for further exploration.
4. To provide the opportunity and resources for learning employability skills.

OPERATION:

The project is staffed by the Principal Investigator, Dr. Robert Reardon, Director of CCIS and the project Director, Paul White, a Career Development Specialist. Two graduate assistants, both doctoral candidates in rehabilitation counseling are also working on the project. All materials to be developed should be completed and pilot-tested by April, 1978 and off-campus field testing will begin in May, 1978. A final report will be ready for dissemination by September, 1978. Other dissemination activities will include the preparation of at least two journal articles and at least two presentations at professional conferences.

EVALUATION:

Evaluation will be both internal and external. One of the graduate assistants has been designated as the Project Evaluator and an advisory committee has been formed to assist in evaluating and monitoring the project and materials developed. Two external evaluator/consultants will be brought in to provide third party evaluation. This third party evaluation will take place twice during the course of the project, once in November, 1977 and again in April or May, 1978.

MAILING LIST:

If you or your organization wish to be added to our mailing list, please send your request to:

Florida State University
CCIS-Grant Project
114 Bryan Hall
Tallahassee, Florida 32306

APPENDIX G

Flyer outlining career planning resources available to disabled students at F.S.U.

CCIS has additional resources that should be of interest to all disabled students.

1. Complete and unabridged 503 and 504 Regulations
2. Audiotapes discussing 504 and Affirmative Action Regulations and their implications in career planning
3. An audiotaped list of questions typically asked of the disabled during employment interviews
4. A college handbook describing programs and facilities for the disabled at over 500 colleges and universities

CCIS wants to serve you.

JUST DROP IN

110 BRYAN HALL 644-2576
Monday–Friday
8 am to 5 pm

CCIS resources are also included in a variable credit course: PCB/BSA 319—Career Planning

The Florida State University
Tallahassee, Florida 32306

CCIS

THE CURRICULAR-CAREER INFORMATION SERVICE

WHAT IS CCIS?

WHAT CAN CCIS DO FOR YOU?

is a Self-Help, Multi-Media-Based Career Planning Program designed to assist you in career decision making; relating majors to careers; and obtaining current, accurate career and curricular information.

with the help of an HEW Office of Career Education funded grant, has purchased and developed many materials of special interest to visually disabled students. These materials include:

1. The Occupational Information Library for the Blind
   An audiotape career library describing approximately 600 different jobs being successfully performed by blind men and women

2. Audiotaped interviews with blind men and women working in a variety of occupations

3. *The Self-Directed Search,* an occupational interest inventory that can be self-administered, scored and interpreted by visually disabled students without the need of a reader

4. Resume writing and interview preparation guides available in Braille, large type and audiotape

5. Audiotaped interviews with faculty members who discuss FSU majors

APPENDIX H

Personnel Roster

PERSONNEL ROSTER

PRINCIPAL INVESTIGATORS:

Dr. Robert Reardon, Associate Professor and Director of CCIS, one-third time, co-developer of adapted SDS.

Dr. Mick Gimmestad, Associate Professor, co-author of the proposal.

PROJECT COORDINATOR:

Mr. Paul White, Student Affairs Coordinator (A and P 4), full-time, co-developer of adapted SDS.

PROJECT SECRETARY:

Ms. Danita Vause, Secretary II, full-time.

PART-TIME STAFF:

Dr. Sandra Barker, Evaluation Coordinator, one-third time Graduate Assistant, co-developer of adapted SDS.

Mr. Arthur Carlson, Materials Development Coordinator, one-half time Graduate Assistant.

STUDENT ASSISTANTS:

Paul Kurtz, co-developer of adapted SDS.

Janet Garrett

Nick Dotson

Tom Hooten

VOLUNTEERS:

Myra Vause

Edward Hudson

Janet Lenz

CONTRIBUTED TIME:

Dr. Gary Peterson, Associate Professor, Evaluation Consultant, one-tenth time.

APPENDIX I

Bureau of Labor Statistics
projections for occupations traditionally requiring
a college degree

DETAILED OCCUPATIONAL PROJECTIONS

ESTIMATED CHANGES IN EMPLOYMENT REQUIREMENTS BETWEEN 1974 AND 1985 FOR SELECTED OCCUPATIONS TRADITIONALLY REQUIRING A COLLEGE DEGREE

(Extracted from *OCCUPATIONAL PROJECTIONS AND TRAINING NEEDS*, BLS Bulletin 1918)

OCCUPATION	*ESTIMATED EMPLOYMENT 1974*	*PROJECTED[1] EMPLOYMENT 1985*	*PERCENT[2] GROWTH/LOSS 1974-85*	*ANNUAL AVERAGE OPENINGS: GROWTH & REPLACEMENT[3] 1974-85*
Accountants	805,000	995,000	23.9	45,500
Actuaries	10,700	14,400	34.1	700
Administrators:				
College	50,200	91,000	81.3	5,800
Elementary/Secondary	209,500	280,100	33.7	13,700
Health Service	150,000	250,000	66.7	17,400
Medical Record	12,000	14,500	27.6	1,100
Air Traffic Controllers	22,000	27,500	24.8	750
Airplane Pilots	79,000	101,000	28.7	2,800
Anthropologists	3,800	5,400	42.9	250
Architects	40,000	60,000	52.3	3,000
Architects:				
Landscape	12,000	18,000	52.3	900
Archivists & Curators	7,600	10,500	38.2	525
Artists:				
Commercial	64,000	80,000	24.3	4,000
Astronomers	2,000	2,100	4.0	30
Bank Officers	240,000	333,000	38.9	16,000
Broadcast Technicians	22,000	26,000	18.2	1,350
Buyers	110,000	150,000	37.6	9,000
Chemists	135,000	173,000	28.6	6,400
Chiropractors	18,000	22,500	25.6	1,200

OCCUPATION	ESTIMATED EMPLOYMENT 1974	PROJECTED[1] EMPLOYMENT 1985	PERCENT[2] GROWTH/LOSS 1974-85	ANNUAL AVERAGE OPENINGS: GROWTH & REPLACEMENT[3] 1974-85
City Managers	2,900	4,200	47.4	150
Claim Representatives	125,000	152,000	21.8	6,600
Clergymen	245,000	275,000	12.2	10,600
Computer Programmers	200,000	285,000	42.5	13,000
Computer Specialists, n.e.c.	16,000	26,000	62.5	1,200
Computer Systems Analysts	115,000	190,000	65.2	9,100
Construction Inspectors	22,000	30,000	43.0	1,700
Counselors:				
College Career Planning and Placement	4,100	5,000	22.0	250
Employment	7,000	10,800	54.2	650
Rehabilitation	19,000	29,000	52.6	2,100
School	44,000	48,000	8.9	2,050
Credit Managers	66,000	90,000	36.4	4,500
Dental Hygienists	23,000	58,000	156.7	6,300
Dentists	105,000	145,000	34.9	6,200
Designers:				
Industrial	10,000	11,500	15.0	450
Interior	34,000	40,000	18.0	1,550
Dietitians	33,000	42,500	29.4	3,200
Drafters	313,000	444,000	41.7	17,300
Economists	71,000	104,000	45.9	4,700
Engineers:				
Aerospace	52,000	58,300	12.1	1,100
Agricultural	12,000	15,900	32.5	550
Biomedical	3,000	4,000	33.3	150

OCCUPATION	ESTIMATED EMPLOYMENT 1974	PROJECTED[1] EMPLOYMENT 1985	PERCENT[2] GROWTH/LOSS 1974-85	ANNUAL AVERAGE OPENINGS: GROWTH & REPLACEMENT[3] 1974-85
Ceramic	12,000	15,900	32.5	550
Chemical	50,000	62,800	25.6	1,850
Civil	170,000	228.100	36.6	9,300
Electrical	290,000	378,900	32.0	12,200
Industrial	180,000	227,100	26.2	7,200
Mechanical	185,000	237,000	29.5	7,900
Metallurgical	17,000	20,000	21.2	550
Mining	5,000	7,100	42.0	350
Petroleum	12,000	18,200	51.7	750
Engineering & Science Technicians	774,300	1,099,000	41.9	45,800
Farm Management Advisors	6,800	5,900	-13.2	70
Foresters	24,000	29,000	20.5	950
Forestry Technicians	10,500	13,800	32.1	500
Geographers	9,000	13,000	42.8	650
Geologists	23,000	32,000	39.4	1,300
Geophysicists	8,200	11,400	39.4	450
Health & Regulatory Inspectors	110,000	160,000	44.0	7,900
Health Technologists & Technicians, n.e.c.	79,300	160,000	101.8	12,800
Historians	26,000	32,000	19.8	1,300
Home Management Advisors	5,400	6,400	18.5	500
Hotel Managers & Assistants	120,000	150,000	22.8	6,500

OCCUPATION	ESTIMATED EMPLOYMENT 1974	PROJECTED[1] EMPLOYMENT 1985	PERCENT[2] GROWTH/LOSS 1974-85	ANNUAL AVERAGE OPENINGS: GROWTH & REPLACEMENT[3] 1974-85
Insurance Agents, Brokers, & Underwriters	470,000	536,000	15.0	19,400
Judges	14,900	17,800	19.5	1,300
Lawyers	342,000	490,000	43.3	26,400
Librarians	125,000	150,000	20.0	10,400
Mathematicians	40,000	46,100	16.5	1,550
Mathematical Technicians	1,000	1,400	40.0	50
Medical Laboratory Workers	175,000	250,000	42.9	18,800
Merchant Marine Officers	7,500	7,500	0.0	150
Meteorologists	5,600	6,900	23.3	200
Newspaper Reporters	40,000	45,500	13.7	2,200
Occupational Safety and Health Workers	25,000	32,500	29.0	1,100
Oceanographers	2,500	3,100	22.5	100
Operations and Systems Researchers & Analysts	95,900	162,000	68.9	7,900
Optometrists	19,000	23,500	22.8	900
Personnel & Labor Relations Workers	320,000	450,000	40.2	23,000
Pharmacists	117,000	137,000	17.4	6,500
Physicians: Medical & Osteopathic	350,000	520,000	49.3	23,000
Physicists	48,000	59,400	25.0	1,700
Podiatrists	7,500	8,700	15.8	400
Police Officers	480,000	650,000	35.5	22,000
Police Officers, State	45,500	76,000	68.3	3,600

OCCUPATION	ESTIMATED EMPLOYMENT 1974	PROJECTED[1] EMPLOYMENT 1985	PERCENT[2] GROWTH/LOSS 1974-85	ANNUAL AVERAGE OPENINGS: GROWTH & REPLACEMENT[3] 1974-85
Psychologists	75,000	105,000	40.7	5,200
Public Relations Workers	100,000	134,000	28.8	6,500
Purchasing Agents	189,000	258,000	36.5	11,700
Radio & Television Announcers	19,000	23,000	21.1	600
Range Managers	2,500	3,850	53.9	150
Recreation Workers	65,000	96,000	42.6	5,900
Registered Nurses	860,000	1,290,000	50.0	71,000
Religious Workers	45,000	53,000	17.8	3,400
Salesworkers:				
Manufacturers	380,000	387,000	2.4	9,500
Real Estate	400,000	480,000	21.8	28,500
Securities	100,000	130,000	31.9	6,100
Scientists:				
Agricultural	14,500	15,500	6.9	450
Atmospheric & Space	6,300	7,500	19.0	225
Biological	32,000	40,900	27.8	1,900
Life	190,000	245,000	29.0	10,700
Life & Physical, n.e.c.	2,100	2,900	38.1	110
Marine	3,300	4,000	21.2	120
Political	11,500	14,500	27.5	600
Social, n.e.c.	6,800	8,600	26.5	450
Social Workers	300,000	435,000	45.7	30,500
Sociologists	14,000	18,000	28.7	750
Speech Pathologists & Audiologists	31,000	51,000	63.0	3,700

OCCUPATION	ESTIMATED EMPLOYMENT 1974	PROJECTED[1] EMPLOYMENT 1985	PERCENT[2] GROWTH/LOSS 1974-85	ANNUAL AVERAGE OPENINGS: GROWTH & REPLACEMENT[3] 1974-85
Statisticians	24,000	31,000	32.6	1,250
Surveyors	55,000	86,600	59.2	3,600
Teachers:				
College & University	527,000	516,000	-2.1	14,000
Elementary	1,276,000	1,439,000	12.8	94,000
Secondary	1,086,000	998,000	-8.1	37,600
Therapists:				
Occupational	9,400	13,800	46.5	1,000
Physical	20,000	32,000	60.0	2,400
Respiratory	38,000	80,000	110.5	6,800
Urban Planners	13,000	18,000	38.5	700
Veterinarians	29,000	38,500	33.0	1,450
Writers: Technical	20,000	26,000	24.9	1,150

Notes: (1) The Bureau of Labor Statistics projections on anticipated 1985 employment are based on certain general assumptions. For details, see Occupational Employment and Training Needs, 1974, or Occupational Projections and Training Needs, 1976 forthcoming (BLS Bulletins 1824 and 1918).

(2) Percentages were calculated using unrounded numbers and therefore may not agree in some cases with rounded numbers shown for current and projected employment.

(3) Replacement needs include openings arising from deaths, retirements, and other separations from the labor force but do not include transfers to other occupations.

APPENDIX J

Report on the Evaluation
of the Effectiveness of the
Self-Directed Search for
Use by the Visually Disabled.

Sandra Barker, Ph.D.,
Evaluation Coordinator

The purpose of this evaluation study was threefold. The project's intention was to determine whether an adaptation of the Self-Directed Search for use by visually disabled students (1) is effective in increasing vocational planning behavior, (2) is effective in increasing the ability to apply Holland's theory upon which the SDS is based, and (3) is evaluated positively by its users.

Methodology

This section presents the methodology used in making these determinations. This presentation includes a description of the target population, adapted materials, instruments, design, and procedures. The evaluation criteria, their bases for selection, and the methods of data analysis are also described.

Target Population

The target population in the present study was composed of 26 legally blind individuals (see Appendix K) ranging in age from 17 to 49. The composition of the target population with regard to other demographic characteristics of concern in this study was as follows: (1) sex: 8 males and 18 females; (2) degree of visual disability: 11 totally blind (visual acuity with best correction limited to finger counting or less and inability to read large type) and 15 partially sighted; and (3) date blindness commenced: 5 adventitiously blind (became blind after birth) and 19 congenitally blind (blind at birth).

Eleven individuals comprising this target population were graduating high school seniors from Florida who participated in a college screening program at Florida State University in early February, 1978. At the time of the original evaluation plan, 20 to 30 students were expected to attend the screening program and all those attending would compose the target population. Selection of high school seniors would permit comparison of results with the Zener and Schnuelle (1972) evaluation of the SDS with the sighted high school population.

Since only 11 students actually participated in the screening program, it was necessary to secure more target individuals. Because of practical constraints (availability of a sufficient number of blind persons in any geographic area, cost, transportation, and time), 15 volunteers from Daytona Beach were selected for inclusion in the target population. These volunteers were obtained through the cooperation of the State of Florida Office of Blind Services. The majority of these individuals were either attending the Regional Rehabilitation Center or participating in some type of work-experience program.

In the study, the target population used a variety of materials adapted for use by blind persons. These adapted materials are described in the next section.

Materials

The materials used by the target population in this evaluation included adaptations of (1) the Self-Directed Search (Holland, 1977b), (2) the Occupations Finder (Holland, 1977a), (3) the SDS worksheets, and (4) the pamphlet, Understanding Yourself and Your Career (Holland, 1977c). In addition, a tactile response board and Occupations Daydreams Notebook were developed for use. Each of these materials will be discussed in this section.

The Self-Directed Search:

The Self-Directed Search (SDS) is a paper-and-pencil vocational counseling program developed by Dr. J. L. Holland (1972). Its purpose is "to provide a vocational counseling experience for people who do not have access to professional counselors, or who cannot afford their services, and to multiply the number of people a counselor can serve" (Holland, 1972, p. 3). Based on Holland's (1959, 1966, 1973a) theory of vocational choice, the SDS provides a self-administered vocational counseling experience in which individuals assess their interests and abilities, explore various occupational alternatives, and match their personality type with similar type occupations.

In adapting the SDS for use by visually disabled individuals, an audiotape was used to present all information. The audiotape presented (1) a brief introduction to the SDS, (2) a description of all materials, directions for their use, and their locations on the desk during the testing situation, and (3) the test from the original SDS workbook.

Responses to the SDS material were made on a tactile response board developed for this purpose. This response board is described in the next section.

Tactile Response Board:

A tactile response board was constructed to eliminate the necessity of writing answers to each section as is required in the original SDS workbook. This wooden response board consists of sets of holes corresponding to the different SDS activities (see Appendix D). Individuals record answers on this board by placing different sized pegs in the appropriate holes.

SDS Worksheets:

There are three worksheets which are part of the original SDS workbook. These are (1) a sheet on which the individual lists occupational daydreams, (2) a sheet on which the individual lists occupations which match his/her Summary Code, and (3) a sheet on which the individual lists occupations which match the various permutations of his/her Summary Code. The sheets were also adapted for use by blind persons. Each answer sheet was reproduced in braille and large type. The directions for use were presented on the audiotape of SDS instructions.

The Occupations Finder:

The Occupations Finder (Holland, 1977a) is a booklet consisting of 500 occupations representing over 90% of employed workers in the United States. It was developed for use with the SDS workbook.

The Occupations Finder is divided into six sections, each section representing one of Holland's (1973a) personality/occupational types. Each occupation is listed under the section corresponding to the first letter of its three-letter Holland Code, i.e., physician, having a code of ISA, would be listed under the Investigative section.

Each occupation is followed by its Dictionary of Occupational Titles (U.S. Department of Labor, 1965) six-digit number enabling individuals to obtain further occupational information from that source. The Occupations Finder also lists the level of education required to perform each occupation listed.

Two forms of The Occupations Finder were developed in adapting it for use by blind persons. Copies of the Occupations Finder were reproduced in large type and in braille and put in separate notebooks. In addition, tabs were attached to the notebooks to identify where each of the six sections of occupations began.

The Occupations Daydreams Notebook:

The Occupations Daydreams Notebook was developed in response to the amount of time blind individuals spent locating their daydreams in the Occupations Finder (Holland, 1977a). Not being alphabetized in the Occupations Finder, occupations and their corresponding Holland codes had to be located by skimming through the 500 occupations categorized only according to the Holland occupational type they resembled most. This activity required an inordinate amount of time for a blind person.

The Occupations Daydreams Notebook listed the same 500 occupations under their appropriate Holland type. However, in this notebook the occupations were listed alphabetically and tabs were attached to provide easy location of each section.

Understanding Yourself and Your Career:

An additional booklet recommended for use with the SDS is Understanding Yourself and Your Career (Holland, 1977c). This booklet explains Holland's theory upon which the SDS is based, explains how the Summary Code from the SDS can be utilized, and recommends some strategies for making good career decisions.

This booklet was also adapted for use by blind persons. The material presented in the booklet was recorded on audiotape, and a hexagonal figure was drawn and labeled in braille and large type. Since it was difficult to describe the hexagonal relationship between the six personality/occupational types on audiotape, the hexagonal reproduction was provided to aid in the understanding of this relationship.

Summary:

This section presented a discussion of the materials used in this evaluation and a description of adaptations made. These materials were (1) the SDS, (2) the tactile response board, (3) the SDS worksheets, (4) The Occupations Finder, (5) The Occupations Daydreams Notebook, and (6) the pamphlet, Understanding Yourself and Your Career. Now that these materials have been described, the instruments used to assess their effectiveness will be presented.

Instruments

Five instruments were used in gathering the data for this evaluation: a Student Interest Questionnaire, Student Opinion Form, Vocational Guidance Pre-test Questionnaire, Vocational Guidance Questionnaire I, and Vocational Guidance Questionnaire II. The pre-test instruments, consisting of the Student Interest Questionnaire and Vocational Guidance Pre-test Questionnaire, will be discussed first. The posttest instruments, consisting of the Student Opinion Form and Vocational Guidance Questionnaire I, and the follow-up questionnaire, Vocational Guidance Questionnaire II, will then be discussed.

Student Interest Questionnaire:

Those parts from the Zener and Schnuelle (1972) Student Interest Questionnaire which were relevant for this target population were used. These include: interest in trying out a new vocational guidance program, and willingness to engage in vocational planning activities (see Appendix L). These items

provided an indication of the individual's willingness to participate in a study such as the present one. Because the 11 students participating in the college screening program were not volunteers, it was felt necessary to obtain the data since (1) the remaining members of the target population were volunteers, (2) most subjects involved in vocational counseling studies are volunteers (Zener and Schnuelle, 1972), this study involves vocational counseling experience, and (3) comparing the effectiveness of the SDS with other vocational counseling experience requires subject similarity in this regard.

Vocational Guidance
Pre-test Questionnaire:

All of the items on the Vocational Guidance Pre-test Questionnaire were taken from the first half of Zener and Schnuelle's (1972) Vocational Guidance Questionnaire I (see Appendix L) Since the Vocational Guidance Questionnaire I, given as a posttest instrument, contained all of the pre-test items, the items on the Vocational Guidance Pre-test Questionnaire are presented in a scrambled order to reduce the possibility of testing effects.

The content assessed by the Vocational Guidance Pre-test Questionnaire covered four areas. First, the pre-test assessed the number and consistency of occupations under consideration. Second, the pre-test assessed satisfaction and certainty of vocational plans. Third, the pre-test assessed the need for information about specific jobs and training programs. Fourth, the pre-test assessed the need for general information about self and occupations.

Student Opinion Form:

The complete Student Opinion Form used by Zener and Schnuelle (1972) was administered to the target population in the present investigation. This form provided an opportunity for user evaluation of the SDS experience and requested the recall and interpretation of the user's SDS Summary Code (see Appendix M).

Vocational Guidance
Questionnaire I:

Those parts of the Zener and Schnuelle (1972) Vocational Guidance Questionnaire I which were relevant for this target population were used (see Appendix M). The questionnaire used in this study assessed the following content areas: (1) the ability to apply Holland's theory upon which the SDS is based, (2) number and consistency of occupations under consideration, (3) satisfaction and certainty of vocational plans, (4) need for information about specific jobs and training programs, and (5) need for general information about self and occupations.

Vocational Guidance Questionnaire II:

Part 1 of Zener and Schnuelle's (1972) Vocational Guidance Questionnaire II was used in the present study (see Appendix N). This instrument assessed content relating to vocational information-seeking.

Summary:

This section presented a description of the pre-test, posttest, and follow-up instruments used in this evaluation. The pre-test instruments were the Student Interest Questionnaire and the Vocational Guidance Pre-test Questionnaire. The posttest instruments were the Student Opinion Form and Vocational Guidance Questionnaire I. The follow-up instrument was the Vocational Guidance Questionnaire II.

All items on these instruments were read out loud to individuals of the group by a trained proctor using a prepared script. Answer sheets for each instrument were developed and reproduced in braille and large type. These answer sheets required either a short written answer or a mark made through the appropriate answer. The scripts and answer sheets can be found in Appendices L, M, and N.

Both the scripts and answer sheets were reviewed for appropriateness of form and presentation by two experts. This review was performed prior to test administration to the target population. One member of the review team is knowledgeable in testing visually disabled individuals and the other is knowledgeable in survey research methods. Revisions were made based upon their reviews.

Design

This evaluation design presents the framework for this study. The design reflects the two major phases in this evaluation: the formative and the summative phases. The formative phase was concerned with obtaining feedback on which to base revisions of the adaptation of the SDS for use by visually disabled individuals. The summative phase was concerned with evaluating the effectiveness of this adapted SDS. Thus, the formative phase took place during the entire developmental period. The summative phase took place once the materials had been developed/adapted.

Figure 1 presents an evaluation flowchart displaying the stages in both the formative and summative phases. Figure 2 presents a timeline providing a chronology of these stages. This timeline also provided a means of monitoring task completion for the evaluation period.

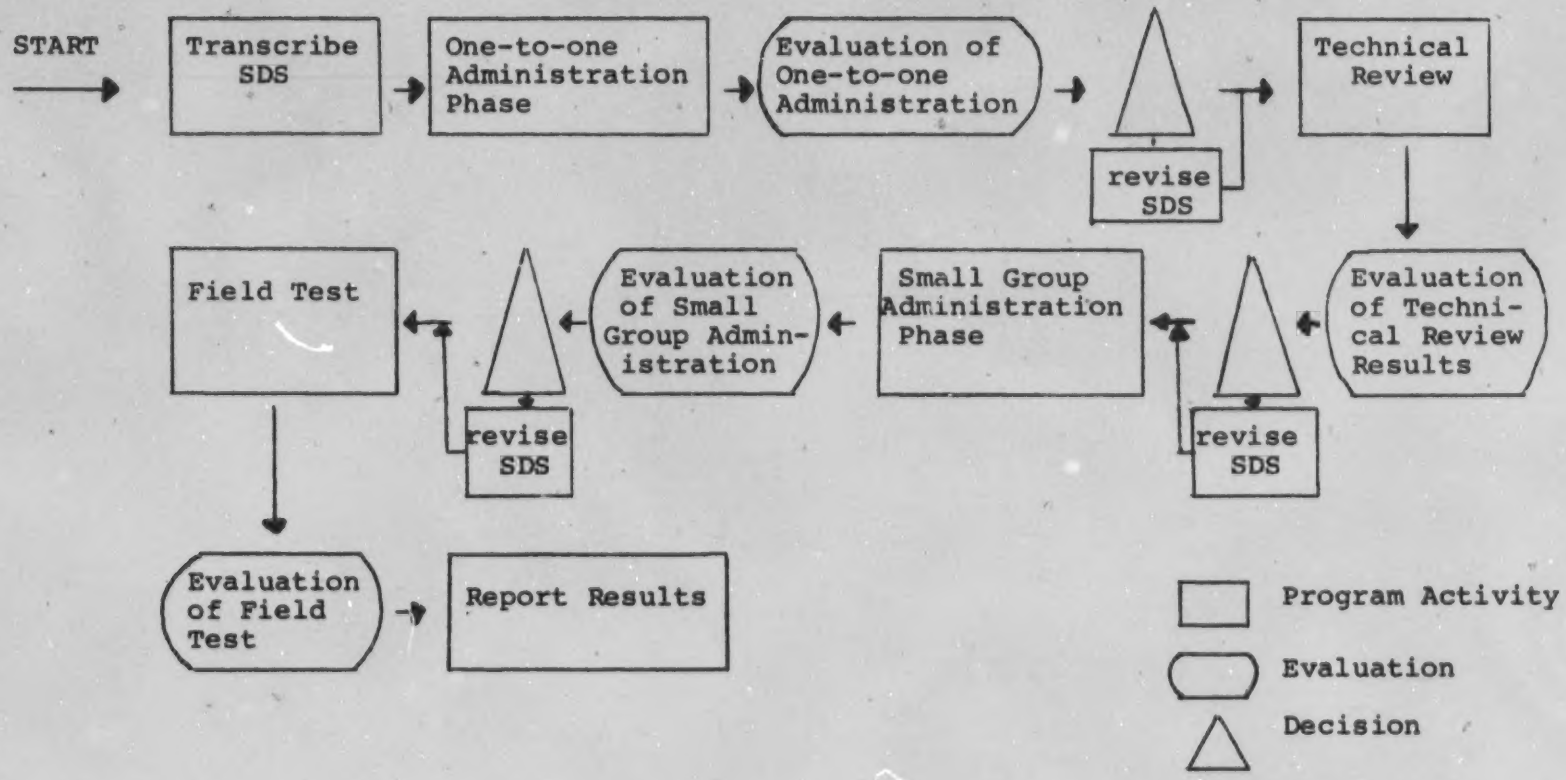


FIGURE 1

EVALUATION FLOWCHART

Activities	1977 Nov	Dec	Jan	Feb	1978 Mar	Apr	May
Transcribe SDS	.....						
One-to-one Phase		.....					
Small Group Phase			.....				
Field Test				.....			
Data Analysis					_____		
Report of Results						_____	
Process Monitoring	.....						

Key

Formative evaluation activities .....

Summative evaluation activities _____

FIGURE 2

EVALUATION TIMELINE

The design for the two evaluation phases will be discussed in separate sections. The formative evaluation design will be presented next, followed by the summative design.

Formative Evaluation Design:

W. Dick (1977) describes formative evaluation as a process in which materials are administered to learners for the purposes of obtaining information for materials revision. This formative evaluation involves the process of evaluating materials during the developmental period.

In accordance with Dick's procedural suggestions for formative evaluation, the following model was followed for the formative evaluation in the present investigation.

One-to-one administration. The purpose of this stage of the formative evaluation was to identify major problems with the adapted SDS; e.g., ability to use tactile response board from audiotaped instructions. Once these problems were identified, the materials were revised accordingly.

Technical review. Following the one-to-one stage, a technical review of the adapted SDS was made. Technical reviewers were a select group of persons knowledgeable in the field of visual disabilities, testing and measurements, and rehabilitation counseling.

Pilot test. The purpose of this small group testing was to identify more refined problems with the program material and any administration problems. (Dick, 1977). Feedback from this phase provided additional data for revision.

Field test. The field testing served both a formative and summative role. Formatively, it provided feedback on which to base further revisions of the materials. Summatively, it provided information relative to the effectiveness of the SDS in obtaining designated criteria. The field test will be described in the summative design section which follows.

Summative Evaluation Design:

The purpose of summative evaluation is to provide information to decision-makers relative to the effectiveness of a program (Dick, 1977; Stufflebeam, Foley, Gephart, Guba, Hammond, Merriman, & Provus, 1971). The field test comprised the summative evaluation and involved the target population.

A modified time series design (Campbell and Stanley, 1963) was employed for the summative evaluation. Using this type of design entailed target individuals serving as their own controls. The procedures used in implementing this design will now be presented.

Evaluation Procedures

As with the evaluation design, the evaluation procedures are discussed in two sections. The formative evaluation procedures will be presented first, followed by the summative procedures.

Formative Evaluation:

The formative procedures are divided into the same four stages described in the design section: (1) one-to-one administration, (2) technical review, (3) pilot test, and (4) field test. This section presents the procedures followed in each of these steps.

One-to-one administration. Initially, the SDS was recorded on audiotape and the response tactile board constructed. In rough form, this transcribed SDS was completed by five blind student volunteers attending F.S.U. during the winter quarter, 1978. Care was taken to select students of (1) varying ability levels (based on the opinion of the Office of Blind Services counselor on campus and the students' GPAs), and (2) of varying degrees of blindness, i.e., total and partial blindness. Students were requested to stop and report any questions or areas of confusion which they encountered while taking the SDS. Emphasis was placed on the reactions and suggestions made by these students, and the SDS was revised accordingly.

Technical review. At this time a group of four experts consisting of persons knowledgeable in the specific areas of (1) visual disabilities, (2) measurement and testing, and (3) rehabilitation counseling, reviewed the SDS for technical problems; i.e., blind persons require more repetition of complex instructions. Further revisions were made based on their suggestions.

Pilot test. The pilot testing consisted of a small group of 8 blind F.S.U. student volunteers who completed the revised SDS. Emphasis was placed on identifying more refined problems with the SDS and any administrative problems that emerged. Further revisions were made based on feedback from these individuals.

Once the revisions from each phase of the formative evaluation were made, 15 sets were made of all materials needed for the field testing. This would permit 15 individuals to complete the SDS at the same time.

Field test. As stated earlier, the field testing comprised the summative evaluation as well as serving a formative evaluation function. Therefore, the field test procedures are described in the summative evaluation section below.

Summative Evaluation:

The summative evaluation involved field testing of the adapted SDS and the administration of the pre-test, posttest, and follow-up instruments discussed earlier in this chapter. This section presents a discussion of the procedures followed in the summative evaluation.

Because members of the target population were located in two geographic areas separated by considerable distance, the SDS had to be administered to each group on separate days. The students attending the F.S.U. screening program completed the SDS in early February, 1978, and the individuals in Daytona Beach completed the SDS two weeks later.

Pre-test. After a brief introduction was given by the evaluator on the first day, the target group was collectively administered the Student Interest Questionnaire followed by the Vocational Guidance Pre-test Questionnaire. The investigator or a trained proctor read the questions out loud from a prepared script (see Appendix L). At least two additional proctors were present during testing to provide any assistance needed.

SDS. Following the pre-test, the SDS was completed individually. The high school students visiting F.S.U. completed the SDS in separate small rooms. The individuals in Daytona Beach completed the SDS individually in separate carrels or on large tables in the learning resource center provided by Daytona Beach Community College. Individual rooms were not available at this institution for the SDS administration. However, since headphones were used, noise distraction was minimal.

In completing the SDS, individuals engaged in a number of career planning activities. First, individuals listed their occupational daydreams and then located the three-letter Holland code for each in the Occupations Daydreams Notebook.

Following the completion of the Occupational Daydreams section, individuals were presented with a list of activities for each of six categories defined by Holland (1972) as Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. Individuals then listed their like or dislike for each activity.

Similarly, individuals (1) assessed their competencies in activities representative of the six categories, (2) assessed their interests in occupations representative of the six categories, and (3) rated themselves in different abilities and different skills. From this data, individuals calculated a three-letter Summary Code. This three-letter code represents the individual's personality pattern (Holland, 1975a).

Individuals then located occupations in the Occupations Finder (Holland, 1977a) which matched their Summary Code. In addition, occupations matching the various three-letter permutations of the Summary Code were located. With these occupations and their codes, individuals compared the codes of their occupational daydreams.

In addition to the above activities, further recommended steps to assist in vocational planning were presented at the end of the audiotape of SDS instructions. A list of helpful books was also provided.

As each individual completed the SDS, one of the trained proctors gave a brief explanation of the meaning of the Summary Code and answered questions. Individuals were then given their own printed copy of the Occupations Finder (Holland, 1977a), and an audiotape of Understanding Yourself and Your Career (Holland, 1977c).

Each of the target members' counselors were given a copy of the SDS, the Occupations Finder, and Understanding Yourself and Your Career. They were also given a Self-Directed Search Summary Sheet (see Appendix O) completed for their clients participating in this study.

Posttest. The day following completion of the SDS, the target individuals collectively completed the brief Student Opinion Form and the Vocational Guidance Questionnaire I. As in the pre-test administration, questions were read from a prepared script by the investigator or a trained proctor. At all times, several trained proctors including one proficient in reading braille, were available to provide assistance.

Two weeks after completing the SDS, the target population was administered the Vocational Guidance Questionnaire II by a trained proctor over the telephone. An attempt was made to contact all individuals who participated in the study. After the administration of this questionnaire, the individual was provided with an explanation of the nature and purpose of the evaluation. Questions were also answered at this time.

Summary:

This section presented a discussion of the evaluation procedures. The formative evaluation discussion included the one-to-one administration, pilot test, and technical review. The summative evaluation discussion of the field test included the pre-test administration, SDS program, and posttest and follow-up administration.

One deviation from the field testing procedures should be noted. Two of the high school students visiting F.S.U. were delayed one full day because of flight difficulties.

These students were administered the pre-test and SDS a day later than the rest of their group. They answered the Student Opinion Form and Vocational Guidance Questionnaire I (read by the investigator) over the telephone the following day, since they had returned to their respective homes within 24 hours of SDS completion.

Other than this one deviation, the procedures were followed as described in this section. Now that these evaluation procedures have been presented, the criteria that were assessed can be discussed.

Evaluation Criteria

As mentioned earlier, the purpose of this evaluation was to determine whether an adaptation of the Self-Directed Search for use by visually disabled students was (1) effective in increasing vocational planning behavior, (2) effective in increasing the ability to apply Holland's theory, and (3) evaluated positively by those using it. The seven criteria on which this evaluation was based, the reasons for their selection, and the items used to assess each of them will be presented in this section.

Similar in purpose to the Zener and Schnuelle (1972) evaluation of the SDS used by sighted high school students, the present study evaluated the SDS according to criteria selected from those used by Zener and Schnuelle. These criteria were selected because (1) they assess the special effects of the SDS "(recall, and application of SDS information)" (Zener and Schnuelle, 1972, p.2), and (2) they include "criteria that are commonly used to evaluate more typical vocational counseling procedures" (Zener and Schnuelle, 1972, p.2).

Several of these criteria were also used by V. L. Avallone (1974) in evaluating the SDS as a short-term vocational counseling experience. He used these criteria in comparing the effectiveness of the SDS with the traditional counseling experience.

The following criteria used by Zener and Schnuelle in their 1972 evaluation were used in the present study. After each criterion, a rationale for its selection is presented followed by the questionnaire items used to assess level of criterion attainment.

The first five criteria were used to determine the effectiveness of the SDS in increasing vocational planning behavior. The sixth criterion was used to determine if SDS users were able to apply Holland's theory. The seventh criterion was used to determine users' evaluation of the SDS.

Criterion 1: The individual will consider more occupations and those occupations will be more consistent with his/her three-letter Holland code.

A desired outcome of most vocational decision-making processes is an increase in the number of occupational alternatives under consideration (Clarke, Gelatt, and Levin, 1965). Holland (1972), however, contends that the persons whose occupations are more consistent with their personality type (as reflected in the SDS Summary Code) will be more satisfied and stable in their occupations. Therefore, both of these variables were selected for investigation. In their study, Zener and Schnuelle (1972) found a significant difference between high school students taking the SDS or Vocational Preference Inventory and control students in the number of occupations considered. Similarly, V. L. Avallone (1974) found a significant difference between sophomore college students taking the SDS and those experiencing traditional vocational counseling in the number of vocational alternatives considered. Both of these studies revealed those students taking the SDS generated a significantly greater number of vocational alternatives.

In the present study, the following item appearing on both the Vocational Guidance Pre-test Questionnaire and the Vocational Guidance Questionnaire I was used to measure this criterion.

Item: List all of the occupations you are considering right now.

The number of occupations being considered was assessed by counting the number of occupations listed in response to this item. The consistency of occupations was determined by calculating the mean of the consistency indices (according to Zener and Schnuelle's 1972 Index of Consistency; see Appendix P) for each occupation listed.

Criterion 2: The individual will be less interested in finding out general information about self and occupations.

Similar to conventional vocational guidance practices, the SDS is considered an experience which will lessen uncertainty concerning vocational plans (Zener and Schnuelle, 1972). These results were obtained in Zener and Schnuelle's (1972) evaluation.

In this study, three items appearing on both the Vocational Guidance Pre-test Questionnaire and Vocational Guidance Questionnaire I were used to assess attainment of this criterion. These items were:

Item: The business of choosing an occupation is very confusing and I don't know where to begin.

Item: I would like to know much more about myself before I begin choosing an occupation.

Item: I need to know much more about occupational opportunities and requirements.

The five possible responses for each of these multiple choice items were the same. They were: strongly agree, agree, neutral, disagree, strongly disagree.

For assessment purposes, each response was assigned a numerical score. These scores were assigned as follows:

strongly agree = 5
agree = 4
neutral = 3
disagree = 2
strongly disagree = 1

The degree of interest in finding out general information was determined by summing the scores of the selected responses for all three items. The higher the resulting sum, the greater the interest in finding out general information about self and occupations.

Criterion 3: The individual whose occupational choice is confirmed by the SDS will be more interested in finding out specific information about jobs and training programs.

Zener and Schnuelle (1972) predicted in their study that students completing the SDS would be interested in finding out more specific information about jobs and training programs. To the contrary, the results showed a significant difference between treatment and control groups, with the control groups expressing greater interest in more specific information.

This project contended that the degree to which specific information is sought may depend on whether SDS results confirm or disconfirm the appropriateness of the individual's current occupational choice. If the SDS confirms the current occupational choice, the individual may be moved to pursue entry-level information about the occupation, i.e., training and educational requirements, and available college or training programs. If, however, the SDS confirms the appropriateness of the occupational choice, it is our contention that the individual would not yet be motivated to pursue such specific information.

Therefore, in addition to analyzing the interests of individuals in finding out specific information about jobs and training programs before and after completion of the SDS, secondary analyses were performed to determine if a relationship exists between interest in finding out specific information about jobs and training programs and the degree of SDS confirmation of occupational choice.

Three items appearing on both the Vocational Guidance Pre-test Questionnaire and the Vocational Guidance Questionnaire I were used to assess attainment of this criterion, interest in finding out specific information. These items were:

Item: I would like to know what one or two specific occupations are all about.

Item: I have some idea about what I'd like to do but I need information about the training or education required.

Item: I need information about available training programs or colleges I might attend.

The five possible responses for each of these multiple choice items were the same. They were: strongly agree, agree, neutral, disagree, strongly disagree.

For assessment purposes, each response was assigned a numerical score. These scores were assigned as follows:

strongly agree = 5
agree = 4
neutral = 3
disagree = 2
strongly disagree = 1

The degree of interest in finding out specific information was determined by summing the scores of the selected responses for all three items. The higher the resulting sum, the greater the interest in finding out specific information about training programs.

Secondary analysis involved examining the relationship between interest in finding out general information, and degree of occupational confirmation. Degree of confirmation was determined by the index of similarity developed by Zener and Schnuelle (1972) and found in Appendix P.

Criterion 4: The individual will be more certain and satisfied with his/her vocational plans.

Super's Self Theory emphasizes the importance of certainty of vocational choice in his concept of crystalization of choice (Zener and Schnuelle, 1972). Satisfaction with vocational choice is also a desired outcome in most vocational guidance approaches (Avallone, 1974; Zener and Schnuelle, 1972).

Both Zener and Schnuelle (1972) and Avallone (1974) found significant differences between treatment and control groups in satisfaction with their occupational choice. Students completing the SDS reported increased satisfaction with current occupational choice when compared with students receiving no treatment.

In the present study, two items on both the Vocational Guidance Pre-test Questionnaire and the Vocational Guidance Questionnaire I were used to assess attainment of this criterion. These items were:

Item: Do you feel that you need to talk to a counselor about your vocational choice?

Item: How satisfied are you with your present choice of a career?

Both of these multiple choice items had five possible responses. Possible responses for the first item were: immediately, within the next week, within the next month, sometime before graduation, no need. For assessment purposes, these responses were assigned the following numerical scores:

immediately = 1
within the next week = 2
within the next month = 3
sometime before graduation = 4
no need = 5

Thus, the higher the score of the selected response, the greater the certainty and satisfaction with vocational plans.

The second item had the following possible responses with assigned numerical scores as indicated:

well satisfied = 5
moderately satisfied = 4
undecided about future vocation = 3
dissatisfied but intend to remain = 2
dissatisfied but intend to change = 1

The degree of satisfaction and certainty about vocational plans was determined by summing the numerical scores for the selected responses to these two items. Again, the higher the score, the greater the certainty and satisfaction with vocational plans.

Criterion 5: Two weeks after taking the SDS, the individual will engage in increased vocational information-seeking behavior.

Krumboltz and Schroeder (1965) indicate that information-seeking is a desired outcome for vocational planning programs. Similarly, Aiken and Johnston (1973) state that increased information-seeking behavior is "a primary goal of counseling with educationally or vocationally undecided students" (p.81).

Zener and Schnuelle (1972) found no significant difference between students taking the SDS and no-treatment students in the frequency and variety of information-seeking behavior. In contrast, Redmond (1973) found that high school students taking the SDS increased vocational information-seeking behavior as did Krivatsy and Magoon (1976) in their study of the SDS used by college students. Avallone (1974) also found a significant difference between college sophomores taking the SDS and non-treatment students in information-seeking behavior with the treatment group reporting increased information-seeking activities.

In contrast to interest in finding out general information about self and occupations and interest in finding out specific information about jobs and training programs, this information-seeking criterion refers to specific vocational planning behaviors; i.e., reading brochures or books about training programs. It was felt that following the SDS experience, individuals would engage in subsequent information-seeking behavior.

Eight items on the Vocational Guidance Questionnaire II assessed attainment of this criterion. These items were:

Item: During the past two weeks, have you spent more or less time than usual thinking about yourself and your occupational future?

Item: Within the past three weeks, have you talked with your parents about yourself and your career opportunities?

Item: Within the past three weeks, have you read or sent for brochures or books on jobs or occupations?

Item: Within the past three weeks, have you read or sent for brochures or catalogues for college or other training programs?

Item: Within the past three weeks, have you visited or made plans to visit colleges, training institutions, or places of employment?

Item: Within the past three weeks, have you watched any TV programs, seen exhibits, shows, or radio programs with information relevant to occupations or colleges?

Item: Within the past three weeks, have you made an appointment to see a vocational counselor?

There were five possible responses to the first item. These were: much less time, less time, about the same time, more time, much more time.

In response to the remaining seven items, individuals responded either "yes" or "no" to each item. If a yes response was given, individuals then indicated how many times they had engaged in that particular behavior.

Effectiveness of the SDS on this criterion was determined descriptively. Level of criterion attainment was attained by the frequency with which individuals thought about themselves and their occupational future, and the frequency and variety of information-seeking behaviors in which they engaged.

Criterion 6: The individual will demonstrate the ability to apply Holland's theory upon which the SDS is based.

In order to interpret results of the SDS, individuals must have an understanding of basic concepts in Holland's Theory of Vocational Choice, i.e., meaning of personality/ occupational types.

Two items measured this criterion: The first appears on the Student Opinion Form and the second appears on the Vocational Guidance Questionnaire. These items are:

Item: My Summary Code was ____, ____, ____, which stands for _____, _____, _____.

Item: In the space provided to the left of each occupation, write the letter of the personality type listed above which is best suited to it.

Personality Types

I. Investigative
A. Artistic
S. Social
E. Enterprising
C. Conventional
R. Realistic

Occupations

___Salesman	___Chemist
___Mechanic	___Musician
___Teacher	___Accountant

Measurement of the first item was based on Zener and Schnuelle's (1972) index of similarity (see Appendix P). A numerical index of similarity is assigned to the code recalled based on its consistency with the individual's Summary Code.

The second item was measured by the frequency with which (1) all six occupations and personalities were matched correctly, (2) five were matched correctly, (3) four were matched correctly, (4) three were matched correctly, (5) two were matched correctly, (6) one was matched correctly, and (7) none were matched correctly. These frequencies were then compared with the chance expectancy for each level of accurate matching.

Criterion 7: Individuals will evaluate their SDS experience positively.

This criterion was concerned with the satisfaction of users with the SDS experience. Williamson and Bordin (1940) indicate that user satisfaction is an important criterion in evaluating the effectiveness of vocational guidance materials. In their evaluation, Zener and Schnuelle (1972) found students completing the SDS rated the experience moderately positive.

In this study, five items on the Student Opinion Form were used to measure this criterion. These items were:

Item: I feel more sure about my occupational choice now than I did before taking the SDS.

Item: I see now that my first choice may not be the best choice for me.

Item: I see more occupational choices now than I did before taking the SDS.

Item: I would recommend taking the SDS to a friend who wanted vocational guidance.

Item: My SDS Summary Code seems reasonable for me.

There were five possible responses for each item. These responses were: strongly agree, agree, neutral, disagree, and strongly disagree. For assessment purposes, the frequency with which each response was selected was noted.

Based on the seven criteria selected for this study, the adapted SDS was evaluated to determine if it was (1) effective in increasing vocational planning behavior, (2) effective in increasing the ability to apply Holland's theory, and (3) evaluated positively by those using it. Selected scales of instruments validated by Zener and Schnuelle (1972) were administered to visually disabled individuals to obtain information to assess the attainment of these criteria. Table 1 presents a summary of the methods of criterion assessment. Copies of all questionnaires can be found in the appendices.

In addition, secondary analyses were conducted to determine if the SDS is differentially effective on the basis of age, sex, degree of blindness, and date blindness commenced. This demographic information was obtained from the Office of Blind Services.

Data Analysis

The summative evaluation data was analyzed to determine the effectiveness of the adapted SDS when used by visually disabled individuals. The responses from each questionnaire were analyzed in order to determine if the SDS was effective in terms of the seven evaluative criteria stated earlier.

Pre-test scores from Vocational Guidance Pre-test Questionnaire and posttest scores from Vocational Guidance Questionnaire I were analyzed to determine if there was a significant increase after the SDS experience in (1) the number of occupations being considered, (2) the consistency of occupations being considered, and (3) certainty and satisfaction with vocational plans. These scores were also analyzed to determine if there was a significant decrease in interest in finding out general information about self and occupations, and to determine if individuals whose occupational choices are confirmed by the SDS indicated increased interest in finding out specific information about jobs and training programs. Wilcoxon Matched-Pairs Signed Ranks Tests were used in all of the above analyses. In addition, a Spearman Correlation Coefficient was used in the analysis of the relationship between interest in specific information and confirmation of occupational choice.

Posttest responses from the Student Opinion Form and the Vocational Guidance Questionnaire II were examined to determine (1) if the SDS users had engaged in increased information-seeking behavior in the two weeks following the SDS experience, (2) if the SDS users demonstrated the ability to apply Holland's theory, and (3) if users rated the SDS experience positively. Percents of individuals engaging in information-seeking behaviors, recalling their Summary Codes correctly,

TABLE 1

ASSESSMENT OF EVALUATIVE CRITERIA

Criteria	Questionnaire	Item	Source
Number and consistency of occupations considered	VGP	10	Zener and Schnuelle, 1972
	VGI	1	
Interest in general information about self and occupations	VGP	2,4,7	Zener and Schnuelle, 1972
	VGI	7,8,9	
Interest in specific information about jobs and training programs	VGP	3,5,6	Zener and Schnuelle, 1972
	VGI	10,11,12	
Satisfaction and certainty with vocational plans	VGP	1,9	Banducci, 1968
	VGI	3,4	
Vocational information-seeking	VGII	2,3	Krumboltz, 1965
Understanding Holland's theory	SOF	2	Zener and Schnuelle, 1972
	VGI	6	
User evaluation	SOF	1-5	Zener and Schnuelle, 1972

Note. SOF = Student Opinion Form
VGP = Vocational Guidance Pretest Questionnaire.
VG I = Vocational Guidance Questionnaire I
VG II = Vocational Guidance Questionnaire II
The data for all criteria are from Zener and Schnuelle, 1972.

accurately matching personality types of occupations, and rating the SDS positively were used in making these determinations.

Secondary analyses were performed on the criterion measures on which statistically significant pre-posttest differences were found. The purpose of these analyses was to determine if the SDS experience was differentially effective for (1) males and females, (2) individuals over the age 25 and those 25 or younger, (3) totally blind and partially blind, and (4) congenitally blind and adventitiously blind. Mann-Whitney U Tests were used to perform these analyses.

Results

The results of this study are presented in the following order:

1. Results of the formative evaluation (the one-to-one testing, technical review, and pilot testing), and the subsequent revisions of the adapted Self-Directed Search.

2. Results of the summative evaluation based on statistical analyses of field test data.

3. Results of secondary analyses of summative data.

Formative Evaluation

The purpose of the formative evaluation was to obtain feedback on which to make revisions of the adapted SDS. There were four stages in the formative evaluation: one-to-one administration, technical review, pilot test, and field test. The results of these stages will be presented in this section.

One-to-One Administration:

Five visually disabled student volunteers from the Florida State University were involved in the one-to-one administration phase of the formative evaluation. These students pointed out several problem areas in the adapted sds: (1) it took too long to complete (1 ½ to 3 hours); (2) the audiotape material was presented too slowly; (3) some instructions on the tape were confusing; and (4) it was difficult to find the occupational daydreams in The Occupations Finder (Holland, 1977a).

Based on this feedback from the one-to-one phase, several modifications were made in the adapted SDS. First, the audiotape was recorded again with material presented more quickly. Confusing instructions were explained more precisely and in more detail. Second, with the consent of Holland, the SDS developer, an Occupations Daydreams Notebook was assembled to reduce the amount of time taken to locate occupational daydreams in The Occupations Finder. This notebook was divided into six sections, each section corresponding to one of the six personality/occupation types: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. All occupations from The Occupations Finder were listed in the Occupations Daydreams Notebook alphabetically under the section corresponding to the first letter of its SDS code; i.e., physician (ISA) was listed in the Investigative section. Tabs were attached along the righthand side of the notebook to identify the beginning of each section. These notebooks, like all of the adapted materials, were available in both braille and large type.

Third, in addition to the assembly of the Occupations Daydreams Notebook to reduce the time involved in completing the SDS, the Occupational Daydreams Answer Sheets (on which users list their daydreams) were revised, limiting the number of daydreams to five instead of eight.

Technical Review:

The technical review team consisted of three experts knowledgeable in the areas of visual disability, rehabilitation counseling, and testing and measurement. Recommendations from this team were incorporated into the adapted SDS. The following revisions were made based on the experts' feedback. First, more time was allowed in the audiotape between sets of instructions to permit the user to complete each task without having to turn the audiotape recorder on and off during the SDS experience. Second, several revisions in the way instructions were presented were made. These revisions included (1) repeating some of the more complex instructions, (2) reducing compound sentences to more simple forms, and (3) giving more detailed description of the tactile board and its use, (4) presenting an introduction to the tactile board earlier, and (5) making editorial changes in instances where understanding would be enhanced.

Pilot Test:

Eight visually disabled student volunteers from F.S.U. were involved in the pilot test, or small group stage, of the formative evaluation. These students completed the adapted SDS which had been revised on the basis of feedback from the one-to-one stage and the technical review. Whereas the one-to-one stage focused on identifying the major problems with the adapted SDS in rough form, i.e., ability to use the tactile board from instructions given, the pilot test was aimed at

identifying more refined problems and any administrative problems that might arise.

As a result of the feedback obtained during the pilot test, the following revisions were made in the adapted SDS: (1) the stated minimum number of occupational daydreams to be listed was eliminated from the instructions; (2) the lists of activities, competencies and occupations heard on the instruction tape were presented more slowly; (3) the instructions to list occupations which appealed to the user, rather than all occupations appearing under a code, were emphasized in the directions instructing users to list occupations matching their SDS Summary Code and its permutations; (4) the instructions for completing the Occupational Daydreams Answer Sheets were explained in greater detail; and (5) extra plugs which fit into the holes in the bottom half of the tactile board were constructed (as a result of several users running out of some numbers while completing the SDS).

Once these revisions were made, 15 sets of all materials and instructions were made. This would permit field testing in small groups with a maximum of 15 members in each group.

Field Test:

As explained earlier, the field test comprised both the summative evaluation and the final stage of the formative evaluation. Formatively, the field test provided feedback on which to base further revisions of the adapted SDS. Summatively, the field test provided data on which to determine the effectiveness of the SDS.

Since the revisions indicated by the formative aspects of the field test were not made as a part of this evaluation study as recommendations for future study, the results of the summative aspects of the field test will be presented in the following section.

Summative Evaluation

The purpose of the summative evaluation was to obtain data from which the effectiveness of the adapted SDS could be determined. Field test data was analyzed for each criterion measure to determine if the SDS was (1) effective in increasing vocational planning behavior, (2) effective in increasing the ability to apply Holland's theory on which the SDS is based, and (3) evaluated positively by its users.

Before focusing on these criterion results, it is important to note the voluntary nature of target member participation in this study. Since some members of the target population were not voluntary participants, a survey

indicating their willingness to participate in a study like the present one was administered. Pertinent scales of Zener and Schnuelle's (1972) Student Interest Questionnaire (see Appendix L) requested individuals to indicate the amount of time they were willing to spend in vocational planning activities such as reading books about occupations and talking with a vocational counselor. Analysis of the responses of the 26 target individuals revealed they were willing to spend a mean of 8.385 hours in vocational planning activities. The first item on the Student Interest Questionnaire, "Would you be interested in trying out a new vocational guidance program" was eliminated from analysis because several target individuals indicated they had misinterpreted this item.

Criterion Measure Results:

In this section, the seven evaluative criteria are presented followed by the results obtained from statistical analyses on criterion measures. Tables are also presented which summarize these results.

Criterion 1: The individual will consider more occupations and those occupations will be more consistent with his/her three-letter Holland code.

This criterion consists of two measures, (1) the number of occupations considered, and (2) the consistency of occupations considered. These two measures were analyzed separately to determine if the SDS was effective in increasing the number and consistency of occupations under consideration.

In determining the number of occupations considered, the occupations listed in response to item 10 on the Vocational Guidance Pre-test and item 1 on the Vocational Guidance Questionnaire I were counted. These pre-posttest responses were then analyzed to determine if target members significantly increased the number of occupations being considered following the SDS experience.

The Wilcoxon Matched-Pairs Signed-Ranks Test was used to analyze these pre-posttest differences. With this statistical test there is an inverse relationship between the size of the statistical T and degree of significance.

Table 2 included the results of Wilcoxon Tests on the number of occupations being considered. This talbe shows the resulting T was 17 for n = 14 on this criterion measure. This value of T is significant at the .025 level for one-tailed tests (critical value of T = 21). Therefore, there is a significant increase in the number of occupations being considered following completion of the SDS.

TABLE 2

T VALUES (WILCOXON MATCHED-PAIRS SIGNED-RANKS TEST) ON VOCATIONAL GUIDANCE CRITERION MEASURES BY BLIND INDIVIDUALS BEFORE AND AFTER COMPLETION OF THE SELF-DIRECTED SEARCH

Criterion Measure	T Value	n[a]
Increase in number of occupations	17*	14
Increase in consistency of occupations	17.5*	14
Decrease in interest in general information about self and occupations	18**	23
Interest in specific information about jobs and training programs	105.5	21
Increase in satisfaction and certainty of vocational plans	0**	13

Note. Individuals responding = 26.

a Number of matched pairs minus the number of pairs with zero difference

*$p < .025$

**$p < .005$

The second measure of this criterion assesses the consistency of occupations under consideration. The mean consistency scores for each occupation listed in response to item 10 on the Vocational Guidance Pre-test Questionnaire and item 1 on the Vocational Guidance Questionnaire I were determined by using Zener and Schnuelle's (1972) six point Index of Consistency (see Appendix P).

The Wilcoxon Test was performed on these mean pre-posttest consistency scores to determine if any significant increase in mean consistency occurred. Table 2 includes the results of this analysis. This table reveals the resulting T was 17.5 for n = 14. This value of T is significant at the .025 level for one-tailed tests (critical value of T = 21). Therefore, there is a significant increase in the mean consistency of occupations under consideration after completion of the SDS.

Criterion 2: The individual will be less interested in finding out general information about self and occupations.

Items 2, 4, and 7 of the Vocational Guidance Pre-test and items 7, 8, and 9 of the Vocational Guidance Questionnaire I measured this criterion. The numerical scores assigned to the responses selected were summed for the pre-test and for the posttest. The pre-posttest differences were then analyzed using the Wilcoxon Test.

Table 2 includes results of the Wilcoxon Test on this criterion measure. This table shows the resulting T was 18 for n = 23. This value of T is significant at the .005 level for one-tailed test (critical value of T = 55). Therefore, there is a significant decrease after the SDS in interest in finding out general information about self and occupations.

Criterion 3: The individual whose occupational choice is confirmed by the SDS will be more interested in finding out specific information about jobs and training programs.

Two sets of analyses were performed on data relating to this criterion. Initial analysis was performed to determine if there was a significant difference between pre-posttest scores for target individuals in interest in finding out specific information about jobs and training programs. Secondary analysis was conducted to determine if there was a relationship between the degree of confirmation of occupational choice and interest in specific information.

Items 3, 5, and 6 of the Vocational Guidance Pre-test Questionnaire and items 10, 11, and 12 of the Vocational Guidance Questionnaire I measured this criterion. The numerical scores assigned to the responses selected were summed for

the pre-test and for the posttest. The pre-posttest differences were then analyzed for significance using the Wilcoxon Test.

Table 2 includes results of the Wilcoxon Test on this criterion measure. This table shows the resulting T was 105.5 for n = 21. This value of T is not significant. Therefore, there is no significant difference in interest in finding out specific information about jobs and training programs after completion of the SDS.

The second analysis of this data was conducted to examine the relationship between SDS confirmation of current occupational choice and interest in finding out specific information about jobs and training programs.

The degree of SDS confirmation of current occupational choice was determined by Zener and Schnuelle's (1972) Index of Similarity (see Appendix P). The appropriate index was assigned to the current occupational choice indicated on the Vocational Guidance Pre-test Questionnaire (item 11). For those individuals indicating "undecided" (N = 9) for their first occupational choice, the mean Index of Consistency based on the occupations being considered (item 10) was used.

A Spearman Rank Correlation Coefficient was used to calculate the relationship between SDS confirmation of occupational choice and interest in finding out specific information. The resulting r based on 25 usable responses was -.14. This represents a very slight, negligible correlation that could have occurred by chance (Guilford, 1956). These findings indicate there is a slight, negligible relationship which could have occurred by chance between the degree of SDS confirmation of occupational choice and interest in finding out specific information about jobs and training programs.

Criterion 4: The individual will be more certain and satisfied with his/her vocational plans.

Items 1 and 9 on the Vocational Guidance Pre-test Questionnaire and items 3 and 4 on the Vocational Guidance Questionnaire I assessed this criterion. The numerical scores assigned to the responses selected were summed for the pre-test and for the posttest. The pre-posttest differences were analyzed for significance using the Wilcoxon Test.

Table 2 includes results of the Wilcoxon Test on this criterion measure. This table shows the resulting T was 0 for n = 13. This value of T is significant at the .005 level for one-tailed tests. Therefore, there is a significant increase in certainty and satisfaction of vocational plans after the SDS experience.

Criterion 5: Two weeks after taking the SDS, the individual will engage in increased vocational information-seeking.

Two measures assessed this criterion. Item 2 on the Vocational Guidance Questionnaire II measures the amount of time spent thinking about self and occupational future in the two weeks after the SDS experience. Items 3A-3G on this same questionnaire measure the amount and variety of information-seeking behavior occurring in the two weeks after the SDS experience.

In assessing the first measure, the frequency (in percentages) was determined for selection of each of the five possible responses. Findings indicate all individuals completing the questionnaire spent the same, or more, time in the two weeks following the SDS experience thinking about themselves and their occupational future. Thirty-nine per cent spent about the same amount of time engaging in these thoughts, 39% ($N = 7$) spent more time engaging in these thoughts, and 22% ($\overline{N} = 4$) expressed spending much more time thinking about themselves and their occupational future. Table 3 presents a summary of these results.

The second measure of the information-seeking behavior criterion relates to the number a nd variety of information-seeking behavior engaged in during the two weeks following completion of the SDS. This measure was assessed by the responses given to items 3A-3G on the Vocational Guidance Questionnaire II. These seven items are presented in Table 4 along with the number of individuals who engaged in the behavior described in each item. The median frequency and range of frequencies with which individuals engaged in each activity are also shown.

Results indicate the most common information-seeking behaviors engaged in by the target population in the two weeks following the SDS experience were (1) talking with parents or spouse about self and career opportunities, and (2) talking with students or friends about self and career opportunities. The least common activities engaged in were (1) reading or sending for brochures or catalogues for colleges or other training programs, and (2) visiting or planning to visit colleges, training institutions, or places of employment.

Findings also show a wide range in the number of times some of the behaviors were performed. A range of 1 to 14 with a median of 3 was found for the number of times 10 target individuals spoke with parents or spouses about themselves and their career opportunities. Similarly, a range of 1 to 12 with the median of 4 was found for the number of times 9 target individuals talked with friends about themselves and their career opportunities; a range of

TABLE 3

AMOUNT OF TIME SPENT BY BLIND INDIVIDUALS THINKING ABOUT OCCUPATIONS IN THE 2 WEEKS FOLLOWING COMPLETION OF THE SELF-DIRECTED SEARCH

Item: During the past two weeks have you spent more or less time thinking about yourself and your occupational future?

Response Choices	Percent Responding[a]
Much less time	0
Less time	0
About the same	39 (7)
More time	39 (7)
Much more time	22 (4)

Note. Individuals responding = 18

a Numbers in parentheses indicate the number of individuals selecting that response.

TABLE 4

MEDIAN AND RANGE OF INFORMATION-SEEKING BEHAVIORS ENGAGED IN BY BLIND INDIVIDUALS IN THE WEEKS FOLLOWING COMPLETION OF THE SELF-DIRECTED SEARCH

Item	Affirmative Responses[a]	Median Frequency[b]	Frequency Range
Have you talked with other students/friends about yourself and your occupational future?	9	4	1-20
Have you talked with your parents/spouse about yourself and your career opportunities?	10	3	1-14
Have you read or sent for brochures or books on jobs or occupations?	6	2	1-3
Have you read or sent for brochures or catalogues for college or other training programs?	5	1	1
Have you visited or made plans to visit colleges, training institutions, or places of employment?	5	1	1-14
Have you watched any TV programs, seen exhibits, shows, or heard radio programs with information relevant to occupations or colleges?	6	4	1-12
Have you made an appointment to see a vocational counselor?	7	1	1-12

Note. Responses are based on the 18 individuals contacted two weeks after SDS completion.

a Number of individuals responding "yes" to the item.

b Median Frequency = median number of times individuals indicated engaging in each behavior.

1 to 14 with the median of 1 was found for the number of times five individuals visited or planned to visit colleges, training institutions, or places of employment; and a range of 1 to 12 with the median of 4 was found for the number of times six individuals watched TV programs, saw exhibits, shows, or heard radio programs with information relevant to occupations or colleges.

Criterion 6: The individual will demonstrate the ability to apply Holland's theory upon which the SDS is based.

Two measures assessed the criterion: ability to recall one's SDS Summary Code and ability to match personality types to occupations. The former ability was requested in item 2 of the Student Opinion Form and the latter ability was requested in item 6 of the Vocational Guidance Questionnaire I.

Findings indicate that 100% (N = 23) of the individuals recalling their SDS Summary Code were able to at least recall the first letter correctly. Seventy-four percent (N = 17) were able to recall the three letters of their code in order. Table 5 presents a summary of these results along with the chance expectancy for each level of ability.

Regarding the ability to correctly match occupations to personality types, the results reveal that 96% (N = 24) of the 25 target individuals responding were able to match at least one occupation with its correct personality type. Twenty percent (N = 5) of these individuals were able to correctly match all six occupations to the personality types. Table 6 presents a summary of these findings along with the chance expectancy for each level of ability.

Criterion 7: Individuals will evaluate the SDS experience positively.

Items 1-5 on the Student Opinion Form requested evaluation of the SDS by its users. Table 7 presents these five items and a summary of the responses given to them. All 26 members of the target population responded to all five items. Findings show that 96% (N = 25) of the target population would recommend the SDS to a friend who wanted vocational guidance, and 88% (N = 23) think their SDS code is realistic for them. Nineteen percent (N = 5) agree that their first occupational choice may not be the best choice for them: 50% (N = 13) disagree.

Summary:

This section presented each of the seven criterion, an explanation of how each was measured and analyzed, and a description of their results. Tables summarizing these results were also presented. The next section will describe the results of the secondary analyses performed on the

TABLE 5

FREQUENCY (IN PERCENTS) WITH WHICH BLIND INDIVIDUALS ARE ABLE TO RECALL THEIR SELF-DIRECTED SEARCH (SDS) SUMMARY CODE

Abilities (in descending order of difficulty	Cumulative Percent[a]	Chance Expectancy
Letters and order of SDS code recalled exactly	74 (17)	.008
1st and 2nd letters of SDS code match 1st and 2nd letters of code recalled	78 (18)	.003
All three letters of SDS code match letters of code recalled in any order	87 (20)	.125
1st letter of SDS code matches 1st letter of code recalled	87 (20)	.167
1st and 2nd letters of SDS code match any 2 letters in code recalled	91 (21)	.250
1st letter of SDS code matches any letter in code recalled	100 (23)	.500

Note. Findings based on 23 responses

a Numbers in parentheses represent number of individuals performing at each ability level.

TABLE 6

FREQUENCY (IN PERCENTS) WITH WHICH BLIND INDIVIDUALS ARE ABLE TO MATCH SIX OCCUPATIONS TO THEIR CORRECT PERSONALITY TYPE

Abilities (in descending order of difficulty)	Cumulative Percent[a]	Chance Expectancy
Correctly match all six	20% (5)	.00002
Correctly match at least five	32% (8)	.00013
Correctly match at least four	60% (15)	.00077
Correctly match at least three	76% (19)	.00463
Correctly match at least two	92% (23)	.02778
Correctly match at least one	96% (24)	.16667
Correctly match none	4% (1)	.33472

Note. Results are based on 25 individuals responding.

a Numbers in parentheses indicate the number of individuals performing at each ability level.

TABLE 7

RESULTS (IN PERCENTS) OF USER EVALUATIONS BY BLIND INDIVIDUALS ON THE SELF-DIRECTED SEARCH (SDS)

Evaluation Item	% Agree	% Neutral	% Disagree
I feel more sure about my occupational choice now than before taking the SDS	50 (13)	46 (12)	4 (1)
I see now that my first occupational choice may not be the best choice for me	19 (5)	31 (8)	50 (13)
I see more occupational choices now than before taking the SDS	65 (17)	19 (5)	15 (4)
I would recommend the SDS to a friend who wanted vocational guidance	96 (25)	4 (1)	0 (0)
My SDS code seems realistic for me	88 (23)	8 (2)	4 (1)

Note. Results based on 26 responses.

Numbers in parentheses represent number of individuals selecting each response.

summative data. In addition, tables will display a summary of these results.

Secondary Findings

Secondary analyses were also conducted on the summative evaluation data. In addition to examining overall pre-posttest differences on the criterion measures, the evaluator is interested in determining if the criterion found to be effective (significant pre-posttest differences on criterion measures) for the overall target population are differentially effective on the basis of either (1) age, (2) sex, (3) degree of blindness, or (4) date blindness commenced.

In examining the data for differential effectiveness, the investigator analyzed the posttest scores (for each criterion measure showing significant pre-posttest differences) on each of the four independent variables (age, sex, date blindness commenced, and degree of blindness). Based on the results discussed earlier in this section, the four criterion measures showing significant pre-posttest differences are:

1. Number of occupations under consideration.
2. Consistency of occupations under consideration.
3. Satisfaction and certainty of vocational plans.
4. Interest in finding out general information about self and occupations.

Mann-Whitney U Tests were used in these analyses. With this statistical test, there is an inverse relationship between the size of the obtained U and level of significance. The analysis of each independent variable on the four criterion measures will be discussed in the following subsections.

Sex:

The target population consisted of 8 males and 18 females. Mann-Whitney U Tests were calculated for each criterion measure. Table 8 presents the results of these calculations. The resulting U values are 71.5 (number of occupations), 40.5 (consistency of occupations), 51 (satisfaction and certainty of vocational plans), and 57 (interest in general information). These values are not significant at the .05 level; therefore, there is no significant difference between males and females on any of the four criterion measures.

TABLE 8

U VALUES (MANN-WHITNEY U TEST) FOR BLIND MALES AND BLIND FEMALES ON FOUR SELF-DIRECTED SEARCH CRITERION MEASURES

Criterion Measures	U[a]	n_1 (Males)	n_2 (Females)
Number of occupations	71.5 (36)	8	18
Consistency of Occupations	40.5 (34)	8	18
Satisfaction and certainty of vocational plans	51 (36)	8	18
Interest in general information information	57 (30)	7	18

a = Numbers in parentheses represent critical U values for two tailed tests at $\alpha = .05$.

Age:

For this analysis, age is dichotomized into persons over age 25 and persons age 25 and younger. This cutoff point was selected because the majority (73%) of the target individuals' ages cluster between 17 and 25 and there was a natural break in the bimodal data at this point. Since the evaluator is interested in any differential effects of the SDS for older versus younger individuals, the age of 25 seems an appropriate point at which to dichotomize.

Mann-Whitney U Tests were calculated for age on each of the four criterion measures. In the target population, 19 individuals were age 25 or younger and 7 individuals were older than 25.

Table 9 presents the results of these calculations. Results in U values for each criterion are 58 (number of occupations), 30.5 (consistency of occupations), 46 (satisfaction and certainty of vocational plans), and 60.5 (interest in general information). The values of U are not significant at the .05 level; therefore, there is no significant difference between persons over age 25 and persons age 25 or younger on any of the four criterion measures.

Degree of Blindness:

For this analysis, degree of blindness is dichotomized into total blindness and partial blindness, determined from medical reports on the target individuals. In the target population, 11 individuals were totally blind and 15 were partially blind.

Again, Mann-Whitney U Tests were calculated for degree of blindness of each of the four criterion measures. Table 10 presents results of these calculations. This table shows that resulting U values for each measure are 51.5 (number of occupations), 57 (consistency of occupations), 79 (satisfaction and certainty of vocational plans), and 65.5 (interest in general information). These U values are not significant at the .05 level; therefore, there is no significant difference between totally and partially blind individuals on any of the four criterion measures.

Date Blindness Commenced:

For this analysis, date blindness commenced is dichotomized into those who are congenitally blind and those who are adventitiously blind. Those individuals who are adventitiously blind represent a broad range from blindness commencing in childhood to blindness commencing in the past five years. The target population consists of 19 congenitally blind and five adventitiously blind persons. It was not possible to determine whether two of the target individuals were congenitally or adventitiously blind from available data; therefore,

TABLE 9

U VALUES (MANN-WHITNEY U TEST) FOR BLIND INDIVIDUALS OVER AGE 25 AND BLIND INDIVIDUALS AGE 25 AND YOUNGER ON FOUR SELF-DIRECTED SEARCH CRITERION MEASURES

Criterion Measure	U[a]	n_1 (age > 25)	n_2 (age ≤ 25)
Number of occupations	58 (32)	7	19
Consistency of occupations	36.6 (25)	6	19
Satisfaction and certainty of vocational plans	46 (32)	7	19
Interest in general information	60.5 (30)	7	18

a Numbers in parentheses represent critical U values for two-tailed tests at $\alpha = .05$.

TABLE 10

U VALUES (MANN-WHITNEY U TEST) FOR TOTALLY BLIND AND PARTIALLY BLIND INDIVIDUALS ON FOUR SELF-DIRECTED SEARCH CRITERION MEASURES

Criterion Measure	U[a]	n_1 (totally blind)	n_2 (partially blind)
Number of occupations	51.5 (37)	11	13
Consistency of occupations	57 (40)	11	14
Satisfaction and certainty of occupational plans	79 (44)	11	15
Interest in general information	65.5 (40)	11	14

a Numbers in parentheses represent critical U values for two-tailed tests at $\alpha = .05$.

they were not included in this analysis.

Mann-Whitney U Tests were calculated for date blindness commenced on each of the four criterion measures. Table 11 presents the results of these calculations. This table shows resulting U values for each measure are 33.5 (number of occupations), 16.5 (consistency of occupations), 42.5 (satisfaction and certainty of vocational plans), and 46.5 (interest in general information).

The resulting U values for consistency of occupations (16.5) is significant at the .05 level; therefore, there is a significant difference between congenitally and adventitiously blind persons in the consistency of their occupational choices. The resulting U values for the remaining three criteria (33, 42.5, and 46.5) are not significant at the .05 level. Therefore, there is no significant difference between congenitally and adventitiously blind individuals in number of occupations considered, satisfaction and certainty of vocational plans, and interest in finding out general information about self and occupations.

Summary:

This section presented the results of analyses conducted to examine the possibility of differential effectiveness of the SDS based on sex, age, degree of blindness, and date blindness commenced. No significant differences were found in the four criterion measures for sex, age, or degree of blindness. A significant difference was found between congenitally and adventitiously blind individuals in consistency of occupations being considered. No significant differences were found between these two groups on the other three criterion measures examined.

Discussion and Conclusions

This section presents discussion and conclusions derived from the formative and summative evaluation results. The discussion of summative results focuses on the effectiveness of the SDS in regard to each evaluative criterion.

Formative Evaluation:

The one-to-one testing, technical review, and pilot testing comprising the formative evaluation phase of the evaluation provided information on which to base revisions of the SDS adapted for the visually disabled. Most of these revisions involved modifications in the presentation of instructions on the audiotape. Some changes were also made on the answer forms which accompanied the SDS.

TABLE 11

U VALUES (MANN-WHITNEY U TEST) FOR CONGENITALLY BLIND AND ADVENTITIOUSLY BLIND INDIVIDUALS ON FOUR SELF-DIRECTED SEARCH CRITERION MEASURES

Criterion Measure	U[a]	n_1 (Adventitiously Blind)	n_2 (Congenitally Blind)
Number of occupations	33.5 (19)	5	19
Consistency of occupations	16.5*(18)	5	18
Satisfaction and certainty of vocational plans	42.5 (19)	5	19
Interest in general information	46.5 (19)	5	19

*$p < .05$

a Numbers in parentheses represent critical U values for two-tailed tests at $\alpha = .05$.

Summative Evaluation:

This section presents conclusions derived from results of the summative data analysis. According to the analyses, the SDS was found effective on six of the seven evaluation criteria. In presenting these conclusions, each criterion will be stated followed by a discussion of the results and conclusions on the criterion measures.

Criterion 1: The individual will consider more occupations and those occupations will be more consistent with his/her three-letter Holland code.

The data analyses for the two measures assessing attainment of this criterion revealed significant results. After completing the SDS experience, individuals listed a significantly greater number of occupations under consideration. Also, the occupations under consideration were more consistent with their personality types (SDS codes) after the SDS experience. Based on these results, the SDS appears to be an effective program for increasing occupational alternatives and for generating occupational alternatives consistent with an individual's personality type.

These findings support those of Zener and Schnuelle (1972). They found the SDS to be effective in increasing the number and appropriateness (consistency) of occupations considered by sighted high school students.

Avallone's (1974) study also revealed similar results. College students were found to consider a significantly greater number of occupational choices than those experiencing traditional counseling methods.

Criterion 2: The individual will be less interested in finding out general information about self and occupations.

Interest in general information was determined by individuals' responses to items concerning confusion about choosing an occupation, desire for more information about occupational opportunities, and desire for information about themselves. It was expected that interest in finding out such information would decrease following the SDS experience.

The results revealed that after the SDS experience, individuals expressed significant decrease in the need for general information about self and occupations. It appears that the SDS provides sufficient general information to decrease the desire for additional information of a general nature. Based on these findings, the SDS is found to be effective in decreasing interest in finding out general information about self and occupations.

This supports the findings of Zener and Schnuelle (1972). They found that high school students completing the SDS expressed significantly less interest in general information than those not completing the program.

Criterion 3: The individual whose occupational choice is confirmed by the SDS will be more interested in finding out specific information about jobs and training programs.

Interest in finding out specific information was determined by individual's responses to items concerned with desire for information about specific occupations, desire for information about training requirements, and desire for information about available training programs.

Results on this criterion revealed no significant difference in interest in finding out specific information after taking the SDS. Apparently the SDS experience does not affect the interest individuals have in finding out specific information about jobs and training programs.

These results do not support those of Zener and Schnuelle (1972). They found a significant difference in need for specific information between high school students completing the SDS and those not completing the SDS. High school students completing the SDS expressed significantly less desire for finding out specific information about jobs and training programs.

This project contended that the degree to which specific information was sought may depend on whether the SDS results confirm or disconfirm the appropriateness of the individual's current occupational choice. If the SDS confirms the current occupational choice, individuals may be prompted to obtain more specific information about that occupation, i.e., training requirements and location as to where such training can be secured. This project contended that those whose occupational choices are disconfirmed would not yet be ready to pursue specific information.

To investigate this relationship, a Spearman Rank Correlation Coefficient was calculated for degree of SDS confirmation of occupational choice and interest in finding out specific information. The resulting r (-14) represents a very slight negligible correlation that could have occurred by chance (Guilford, 1956).

The following explanation is offered as a plausible reason for this result. Findings indicate there is no significant difference in interest in finding out specific information after completing the SDS. Individuals in the target population expressed a fairly high need for specific information before and after completing the SDS. This could be partially due to the scarcity of occupational literature available in forms appropriate for visually disabled individuals. The SDS experience provides general information about occupations and personality types; however, it offers

little in the way of specific occupational information. Therefore, even though the SDS may confirm the appropriateness of the individual's first occupational choice, the chances are slim that the visually disabled individual has had access to any substantial amount of specific information about jobs and training programs. It follows then, that under these circumstances the SDS would have little effect on this need. This rationale also may explain the reaons for the high interest expressed (pre and posttests) for such information. The unavailability of such information may make it salient to persons regardless of whether their occupational choices are confirmed or disconfirmed by the SDS.

Criterion 4: The individual will be more certain and satisfied with his vocational plans.

Satisfaction and certainty with vocational plans was determined by the individual's expressed satisfaction with their present occupational choice and expressed needs to talk to a vocational counselor. Results of analyses on these criterion measures revealed the significant (p is less than .005) increase in the level of certainty and satisfaction after completion of the SDS. Based on these results, the SDS is effective in increasing certainty of and satisfaction with one's vocational plans. These findings support those of Zener and Schnuelle (1972) and Avallone (1974). They found significant differences between students completing the SDS and non-treatment subjects on satisfaction with and certainty of vocational choice. Both studies found that subjects completing the SDS expressed dimensionally greater satisfaction and certainty.

Criterion 5: Two weeks after taking the SDS, the individual will engage in increased vocational information-seeking.

There are two measures for this criterion: one is concerned with the amount of time spent thinking about self and occupations and the other is concerned with the number of vocational information-seeking behaviors performed. The items relating to these measures composed part of the Vocational Guidance Questionnaire II (see Appendix N) which was administered by telephone two weeks after the SDS experience. Sixty-nine percent (N = 18) of the target population were reached, and all contacted completed the questionnaire.

Sixty-one percent of the persons contacted indicated spending more time in the intervening two weeks thinking about their occupational future. Thirty-six percent of these indicated spending much more time.

Regarding information-seeking behavior, 50% indicated talking with friends about themselves and career opportunities, and 55% indicated talking with parents or spouses.

Less than 50% of the individuals contacted had engaged in any of the other behavior. However, two of these other behaviors involved reading and sending for vocational literature. Scarcity of available vocational literature for the blind is a possible explanation for the low involvement in these behaviors.

One other behavior receiving less than 50% participation (39%) concerns making an appointment to see a vocational counselor. Since all individuals in the target population are active clients of the Office of Blind Services, they see counselors on an ongoing basis. Therefore, there is a good possibility that some target individuals already had appointments scheduled and would have no need to schedule another. Others may have scheduled an appointment to see their counselor, but not necessarily for vocational counseling. Because of these considerations, care should be taken in interpreting or generalizing responses to this particular item.

The last behavior receiving less than 50% participation involved watching TV and seeing exhibits and shows, and hearing radio programs (33%, $\underline{N} = 6$). It would seem that one reason why this percentage is not higher might be the exclusion of totally blind individuals from the visual activities, i.e., watching TV, seeing exhibits. However, four of the six individuals indicating engaging in these activities are totally blind. Responses to this item are necessarily influenced by the availability of such vocational oriented programs. Thus, one reason for more persons not engaging in this could be the lack of availability of these occupational programs in the last two weeks following the SDS experience.

From these results it appears that the SDS is effective in increasing vocational thoughts, and it may be effective in increasing vocational information-seeking of particular types. These results do not support those of Zener and Schnuelle (1972). They found no significant differences in the amount and variety of information-seeking engaged in by high school students completing the SDS and no-treatment subjects. However, Redmond (1973), Krivatsy and Magoon (1976), and Avallone (1974) found significant differences in information-seeking between college subjects completing the SDS and no-treatment college subjects. The subjects completing the SDS engaged in increased vocational information-seeking in these three studies.

The results of the current evaluation on this criterion may represent the intervening variables discussed earlier which affect this particular target population. More research is needed to investigate this possibility.

Criterion 6: The individual will demonstrate the ability to apply Holland's theory upon which the SDS is based.

Two measures are used to assess attainment of this criterion. The first measure concerns the ability of individuals to recall their SDS Summary Code 24 hours after completing the SDS. The second measure concerns the ability of individuals to match six occupations with their appropriate personality/occupational types based on Holland's theory.

Findings on the first measure indicate that for each of the six ability levels, the percent of the target population able to recall their SDS Summary Code exceeded chance expectancy. One-hundred percent (N = 23) of the individuals responding to this measure were able to recall at least the first letter of their SDS code. Seventy-four percent were able to recall all three letters in the exact order of their SDS code.

Regarding the second measure for this criterion, 96% (N = 25) of the individuals were able to match at least one occupation with its correct personality. Twenty percent were able to match all six occupations correctly.

These results indicate that the SDS promotes the ability to apply Holland's theory. Thus, the SDS appears effective in promoting understanding of Holland's theory.

Criterion 7: Individuals will evaluate the SDS experience positively.

The results of the Student Opinion Form indicate that the majority of the target population rate the SDS as a positive experience. Eighty-eight percent (N = 23) indicate their SDS code seems realistic for them and 96% (N = 25) state they would recommend the SDS to a friend who wanted vocational guidance. Sixty-five percent (N = 17) indicate they see more occupational choices since taking the SDS and 50% (N = 13) state they feel more sure about their occupational choice since taking the SDS. Nineteen percent (N = 5) state that after completing the SDS, they saw that their first occupational choice may not be the best one for them. Thirty-one percent (N = 8) of the individuals were "neutral" on this item, and 50% (N = 13) disagreed. It seems from these responses that the SDS may have provided support for the occupational choices of 13 individuals, and prompted questioning of the appropriateness of the occupational choices for eight persons. Findings reveal a majority of favorable evaluation of the SDS program. Based on these results, the SDS is evaluated positively by its users.

These results support those of Zener and Schnuelle (1972). They report similar findings. High school students completing the SDS rated the experience positively.

Secondary Findings:

In addition to analyzing the results of the criterion measures, the project investigated differences between members of the target population on variables to determine if the SDS was more effective for some subgroups as opposed to others. The difference in size between the subgroups, in some instances, is large, i.e., 8 males versus 18 females. Therefore, care should be taken in making interpretations and generalizations regarding non-significant results based on these Mann-Whitney U Test findings.

The following independent variables were investigated: sex, age, degree of blindness and date blindness commenced. Each variable was analyzed separately on posttest scores of each criterion measure revealing significant pre-posttest differences: number of occupations, consistency of occupations, interest in general information about self and occupations, and satisfaction with and certainty of vocational plans.

There is no significant difference between males and females on any of the criterion measures analyzed. Similarly, there is no significant difference between persons over age 25 and those age 25 or younger, or between totally blind and partially blind individuals on any of the criterion measures.

On the basis of these findings, it appears that the SDS is equally effective for (1) males and females, (2) persons over age 25 and persons age 25 or younger, and (3) partially blind and totally blind individuals.

There is a significant difference (p is less than .05) between adventitiously blind and congenitally blind individuals in the consistency of their occupational choices. Results indicate adventitiously blind individuals list occupations which are more consistent with their SDS Summary Code. These findings indicate that the SDS may not be equally effective in increasing the consistency of occupational alternatives considered by adventitiously and congenitally blind individuals.

One possible explanation for this finding is that adventitiously blind individuals have had the experience of seeing persons employed at various jobs whereas congenitally blind individuals have not. Therefore, the former group may have additional information on which to base more consistent occupational choices.

There are no significant differences between congenitally and adventitiously blind individuals on any of the other three criterion measures. Based on these findings, the SDS appears to be equally effective for individuals who are

congenitally blind and those who are adventitiously blind in promoting the number of occupational choices considered, interest in finding out general information about self and occupations, and satisfaction and certainty with vocational plans.

Summary:

Procedures and instruments used in this study yielded important information. Assessment of criterion measures provided an indication of the effectiveness of an adapted version of the SDS for use by visually disabled individuals. Findings suggest that this adapted SDS is an effective vocational guidance simulation for visually disabled students.

Implications

The results of this evaluation provide several implications for practitioners. Of primary significance, this evaluation suggests that existing career planning programs and instruments designed for the general population can be adapted for specific populations without reducing their effectiveness. The results also imply that visually disabled individuals will assume more control over their career planning, if given the opportunity. Finally, special conditions considered unlikely in the general population, e.g., incidents of rare codes, may occur frequently in special populations because of their unique environmental situation.

Recommendations

The results of the present evaluation suggest several directions for further revision of the adapted SDS. Recommendations for future research will be discussed in this section.

SDS Adaptations:

The field testing of the adapted SDS provided feedback on which to base further SDS revisions. Although care was taken in the current study to provide clear and succinct instruction on the SDS audiotape, a few members of the target population required considerable assistance in completing the SDS. After the field testing had been completed, the investigator acquired copies of achievement test scores for many of the target individuals. It appeared that those requiring the most assistance with understanding directions were those individuals with low reading comprehension abilities. In light of these findings, it is recommended that Form Easy of the Self-Directed Search be placed on audiotape. This form is designed for individuals with a fourth-grade reading level. Response to Form Easy could be

made on the same response tactile board. No modifications are required. Once Form Easy is made accessible to the blind, pilot tested, and evaluated, individuals would be able to take the form of the SDS most appropriate for their reading comprehension level.

Several other modifications in the adapted SDS are also recommended. Since some of the pegs fit very tightly into the tactile board and are difficult to insert, further modification is required to make insertion easier. This was a problem particularly for totally blind individuals.

Although care was taken to record the SDS instructions in as quiet a place as possible and to record from high-quality equipment, static and subdued noises were evident. A professional recording in a laboratory designed for this purpose is therefore recommended.

Future Research:

With respect to future research, the following recommendations are made:

1. An evaluation of the adapted SDS is recommended with a larger blind population. An increase in population size would permit other statistical analyses. Of particular interest, and need, is the cluster analysis to determine if blind individuals are loading on certain personality/occupational types and being excluded from others. Results from the present study revealed with 52% ($\bar{N}$ = 14) of the target individuals obtained realistic high point codes (first letter of their SDS Summary Code), 15% ($\bar{N}$ = 4) obtained conventional high point codes, 11% ($\bar{N}$ = 3) received enterprising high point codes, 11% ($\bar{N}$ = 3) received social high point codes, 7% ($\bar{N}$ = 2), received artistic high point codes, and 4% ($\bar{N}$ = 1), received investigative high point codes. Also, an item analysis is recommended to provide an indication of biased or invalid items for blind users.

2. A surprising finding in the present study was the high frequency of rare Summary Codes ($\bar{N}$ = 6). A rare Summary Code is a code for which there are no matching occupations due to the contradictory characteristics of the personality/occupational types, i.e., an artistic occupation is unstructured, whereas a conventional occupation is highly structured. Frequency of this type of code is rare in the general population. Therefore, the incidents of rare codes in blind populations requires further study.

3. Further research is recommended on the predictive validity of the SDS with blind individuals. Similar to the one and three-year follow-up studies of sighted students who have completed the SDS, follow-up studies of blind individuals are recommended to determine the consistencies between SDS Summary Codes and the codes of occupations in which they are later employed.

4. Effect studies are recommended to determine what about the SDS makes it effective with blind individuals, i.e., exposure to 500 occupations, its self-directed nature, etc.

Summary

This study evaluated the effectiveness of the Self-Directed Search adapted for use by blind individuals. The purpose of the evaluation was to determine if the SDS is (1) effective in increasing vocational planning behavior, (2) effective in increasing the ability to apply Holland's theory upon which the SDS is based, and (3) evaluated positively by its users. Results indicate that the adapted SDS is an effective vocational guidance program for visually disabled individuals. Further research is recommended to provide more evidence of the effectiveness of the SDS with blind populations.

APPENDIX K

Tactile Response Board

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SELF DIRECTED SEARCH RESPONSE BOARD

A tactile response board for the SDS was constructed to eliminate the necessity of writing answers to each section as required in the original SDS workbook. This tactile board (see Figure 3) consisted of the following:

(1) A wooden board with six rows of 14 small holes on the upper half which were used for entering responses to the Activities, Competencies, Occupations, and the two Self-Estimates sections.

(2) The lower half of the board consisted of three rows of twelve, and two rows of six, larger holes. The rows corresponded to the Activities, Competencies, Occupations, Self-Estimates I, and Self-Estimates II sections of the SDS, and the columns corresponded to each of the 6 personality/occupational types. Since the two Self-Estimates sections were used for self ratings on a scale from one to seven, only one hole was needed under each personality/occupation type for these two rows. Two holes were constructed under each type for the Activities, Competencies, and Occupations rows since a two-digit score was possible in each of these categories. This half of the board was used to record the scores for each section of the SDS indicated on the upper portion of the board. This was necessary so that the pegs could be

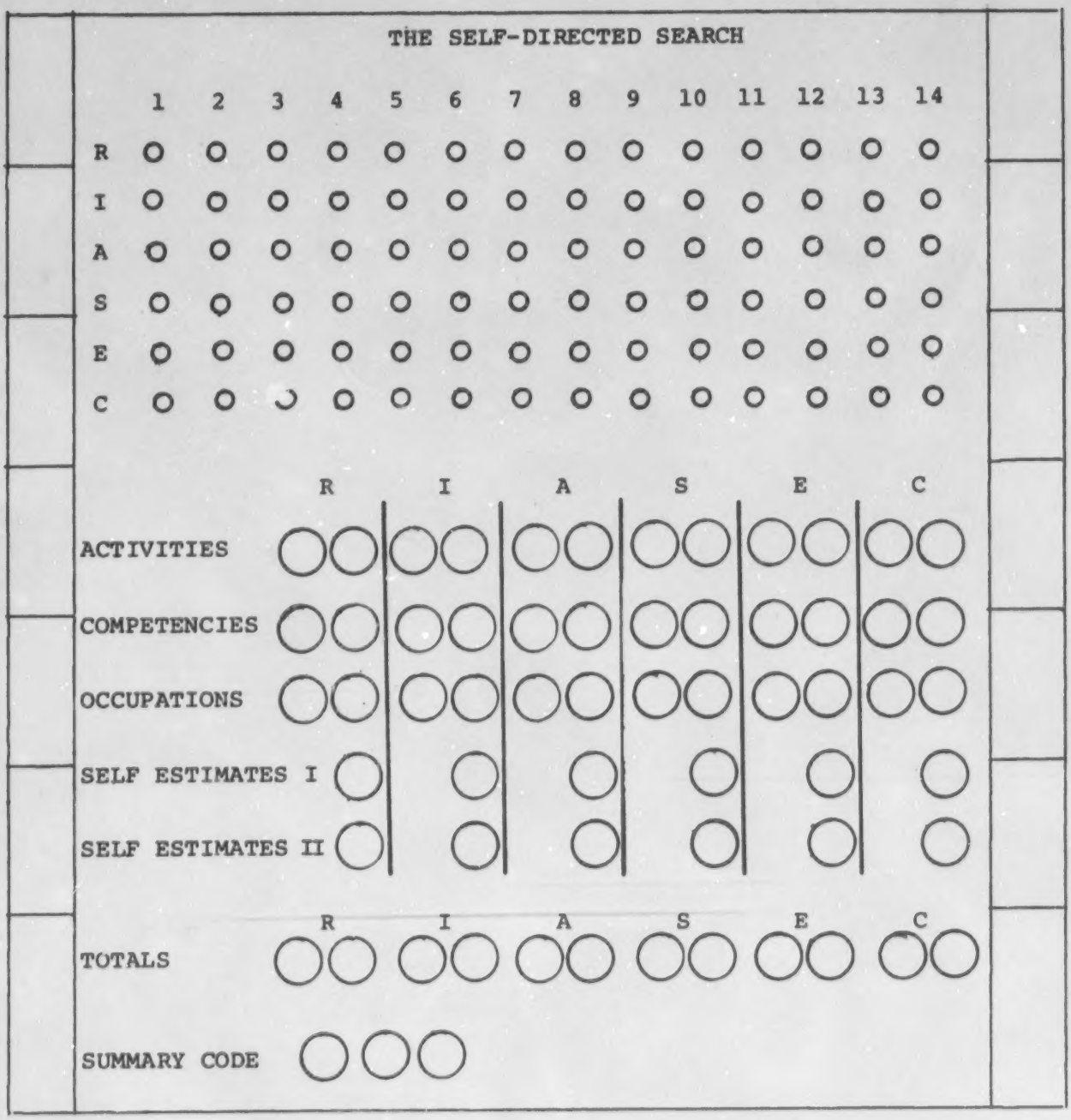

FIGURE 4

SDS TACTILE BOARD ADAPTED FOR USE BY BLIND INDIVIDUALS

removed in order to reuse the upper portion of the board for each section.

(3) A set of 30 small pegs which fit into the holes of the upper half of the board were made.

(4) A set of round plugs (approximately one inch in diameter) numbered in braille and large type figures from zero to nine were constructed to fit into the holes in the lower half of the board.

(5) A row labeled "Totals" was constructed under the Self-Estimates II row and consisted of two holes under each personality/occupation column. This row was used for summing the scores for the five categories under each of the six types.

(6) Three round holes were constructed at the bottom of the board beside the words "Summary Code."

(7) 12 round plugs were constructed and labeled to represent each of Holland's six categories (two for each category). These plugs fit into the Summary Code holes. All labeling on the board was done in large type covered by a piece of clear plastic with the same label in braille. Trays were constructed along both sides of the board to contain the pegs and plugs.

A description of the tactile board was presented in the audiotape of instructions. In addition, detailed directions for its use were placed on the tape.

APPENDIX L

Pretest Instruments

SCRIPT FOR THE SELF-DIRECTED SEARCH PRETEST

This morning you will be completing the Self-Directed Search, or SDS, which is a guide to educational and vocational planning.

Before beginning the SDS, however, you will be asked to respond to a brief student interest questionnaire and a Vocational Guidance Questionnaire.

You should have in front of you a copy of the Student Interest Answer Sheet and the Vocational Guidance Answer Sheet. Please place your name on all 3 answer sheets. You will answer on the Student Interest Answer Sheet first. I will read four questions to you. In response to each question, place a mark through the answer on your answer sheet which best reflects how you feel. If you make a mistake, place a second mark through that erroneous answer and then mark the correct answer. Are there any questions?

On your answer sheet, locate the two possible answers for question A. Beside A, you should find the words YES and NO. Has everyone found the two answers for question A? Mark through the appropriate answer to the following question.

A. Would you be interested in trying out a new vocational guidance program?

Mark through either the answer YES or NO in the A row.

Now locate the answers for question B on your answer sheet. Beside B, you will find the numbers 1, 2, 3, 4, and 5+. These numbers refer to hours: 1 hour, 2 hours, 3 hours, 4 hours, and 5 or more hours. Mark through the appropriate number of hours in response to the following question.

B. How many hours would you be willing to devote to reading books about occupations?

Mark through your answer in the B row.

Now locate the answers for question C. Beside C on your answer sheet you will again find the numbers 1, 2, 3, 4, and 5+. Again these numbers represent hours. Mark through the appropriate number of hours in response to question C.

C. How many hours would you be willing to devote to taking vocational interest tests?

Mark through the appropriate answer in row C.

Now locate the answers for question D on your answer sheet. They are the same as for the two previous questions. Mark through the appropriate number of hours in response to question D.

D. How many hours would you be willing to devote to talking with a vocational counselor?

You have now completed the Student Interest Questionnaire. Please pass them forward and a proctor will collect them.

Now take your Vocational Guidance Answer Sheet. This survey is similar to the Student Interest Questionnaire you just completed. I will read a question and you will make a mark through one of the answers on your answer sheet. Are there any questions?

On your answer sheet, locate the set of answers for question 1. Beside number 1 you will find the initials IM, NW, NM, BG, and NN. These initials stand for immediately, within the next week, within the next month, sometime before graduation, and no need. Place a mark through the answer which best indicates your need to talk to a counselor about your vocational choice--immediately, within the next week, within the next month, sometime before graduation, no need.

For answering questions 2 through 7, you will find the initials SA, A, N, D, and SD. These initials represent strongly agree, agree, neutral, disagree, and strongly disagree. Mark through the answer which best reflects the extent to which you agree with questions 2 through 7. Now locate the line of answers for question 2. Mark through the answer which best reflects your agreement with the following statements.

2. I need to know much more about occupational opportunities and requirements--strongly agree, agree, neutral, disagree, strongly disagree.
3. I need information about available training programs or colleges I might attend--strongly agree, agree, neutral, disagree, strongly disagree.
4. The business of choosing an occupation is very confusing and I don't know where to begin--strongly agree, agree, neutral, disagree, strongly disagree.
5. I have some ideas about what I'd like to do but I need information about the training or education required--strongly agree, agree, neutral, disagree, strongly disagree.
6. I would like to know what one or two specific occupations are all about--strongly agree, agree, neutral, disagree, strongly disagree.
7. I would like to know much more about myself before I begin choosing an occupation--strongly agree, agree, neutral, disagree, strongly disagree.

Now locate the answers for question 8. Beside 8 you will find the initials VW, RW, FW, NW, and NA. These initials represent: very well, rather well, fairly well, not very well, not at all.

Mark through the answer which best indicates your feelings about the following question:

8. Do you feel that you understand what kind of occupations are suitable for your personality?--very well, rather well, fairly well, not very well, or not at all.

Locate the answers for question 9. Beside number 9, you will find the initials WS, MS, DR, DC, and U. These initials represent: well satisfied, moderately satisfied, dissatisfied but intend to remain, dissatisfied and intend to change, and undecided about future vocation. Mark through the answer which best indicates how satisfied you are with your present choice of occupation--well satisfied, moderately satisfied, dissatisfied but intend to remain, dissatisfied and intend to change, undecided about future vocation.

Questions 10 and 11 must be answered on the second page of the Vocational Guidance Answer Sheet with a brailler or pen. Please raise your hand if you prefer to use a brailler and a proctor will bring one to you. Has everyone located the second page of the Vocational Guidance Answer Sheet?

Beside number 10 on your answer sheet, list all of the occupations you are considering right now. Beside number 11 on your answer sheet, write which occupation is your first choice. (If undecided, write "undecided").

You have now completed the Vocational Guidance Questionnaire. Please pass your answer sheets forward and a proctor will collect them.

You are now ready to begin the Self-Directed Search. All instructions for the Self-Directed Search are on the audiotape recorder on the lefthand side of your desk. The identification of audiotape recorder control buttons are written in braille and large type on the top of the tape recorder control buttons. E stands for eject, R stands for record, RW stands for rewind, P stands for play, S stands for stop, and FF stands for fast forward. Are there any questions?

You may now begin the SDS by turning on your tape recorder and following the instructions given to you.

STUDENT INTEREST ANSWER SHEET

A. YES NO

B. 1 2 3 4 5+

C. 1 2 3 4 5+

D. 1 2 3 4 5+

VOCATIONAL GUIDANCE ANSWER SHEET

1.	IM	NW	NM	BG	NN
2.	SA	A	N	D	SD
3.	SA	A	N	D	SD
4.	SA	A	N	D	SD
5.	SA	A	N	D	SD
6.	SA	A	N	D	SD
7.	SA	A	N	D	SD
8.	VW	RW	FW	NW	NA
9.	WS	MS	DR	DC	U

VOCATIONAL GUIDANCE ANSWER SHEET

10.

11.

APPENDIX M

Posttest Instruments

SCRIPT FOR THE SELF-DIRECTED SEARCH POSTTEST

At this time, we would like your opinion of the Self-Directed Search you recently completed. In front of you is a copy of a Student Opinion Form and a Vocational Guidance Answer Sheet. Write your name on all three answer sheets. You will complete the Student Opinion form first. The first part of this form consists of five questions. In response to each statement, you are asked to indicate the extent to which you agree with it. On your answer sheet, the five possible answers for items 1 through 5 are indicated by the initials SA, A, N, D, and SD. These initials stand for strongly agree, agree, neutral, disagree, and strongly disagree. In response to each statement, mark the answer on your answer sheet which best indicates the extent to which you agree with it. Are there any questions?

Locate the answers for question 1 on your answer sheet. Mark through the answer on your answer sheet which best shows the extent to which you agree with the following statement:

1. I feel more sure about my occupational choice now than I did before taking the SDS--strongly agree, agree, neutral, disagree, strongly disagree.

Locate the answers for statement 2.

2. I see now that my first choice may not be the best choice for me--strongly agree, agree, neutral, disagree, strongly disagree.
3. I see more occupational choices now than I did before taking the SDS--strongly agree, agree, neutral, disagree, strongly disagree.
4. I would recommend taking the SDS to a friend who wanted vocational guidance--strongly agree, agree, neutral, disagree, strongly disagree.
5. My SDS summary code seems realistic for me--strongly agree, agree, neutral, disagree, strongly disagree.

For the last five questions you will respond by writing short answers. If you prefer to write with a brailler, please raise your hand and a proctor will bring one to you.

Locate 6 on your answer sheet. Beside 6, answer the following question:

6. My SDS Summary Code was ___, ___, ___, which stands for _____, _____, _____.

Beside 7 on your answer sheet, answer the following question:

7. All in all, I think taking the SDS was helpful because _____

_____

Beside 8 on your answer sheet, answer the following question:

8. Taking the SDS was not helpful because _____

_____

Beside 9 on your answer sheet, answer the following question:

9. The thing I liked best about the SDS was _____

_____

Beside number 10 on your answer sheet, answer the following question:

10. The thing I disliked most about the SDS was

_____

You have now completed the Student Opinion Form. Place your completed forms on the floor beside you and a proctor will collect them.

Now locate the Vocational Guidance Answer Sheet. The first two questions require short answers which should be written on the first page of your answer sheet. Beside number 1 on your answer sheet, list all of the occupations you are considering right now. Beside number 2 list which occupation is your first choice. (If undecided, write "undecided.")

Now locate the five possible answers for question 3. Beside 3, you will find the initials WS, MS, DR, DC, and U. These initials stand for well satisfied, moderately satisfied, dissatisfied but intend to remain, dissatisfied

and intend to change, undecided about future vocations.

Locate the five possible answers for question 4. Beside 4, you will find the initials IM, NW, NM, BG, and NN. These initials represent immediately, within the next week, within the next month, sometime before graduation, and no need. Place a mark through the answer which best indicates your need to talk to a counselor about your vocational choice--immediately, within the next week, within the next month, sometime before graduation, no need.

Beside 5 on your answer sheet, you will find the initials VW, RW, FW, NW, and NA. These initials represent: very well, rather well, fairly well, not very well, and not at all.

Mark through the answer which best indicates your feelings in response to the following question:

5. Do you feel that you understand what kind of occupations are suitable to your personality--very well, rather well, fairly well, not very well, or not at all.

Now take page 2 of your answer sheet. Locate the answers to question 6 on your answer sheet. Beside 6 you will find a list of 6 personality types, followed by a list of 6 occupations. In the space provided to the left of each occupation, write the letter of the personality type listed above which is best suited for it. Are there any questions?

For answering questions 7 through 12, you will find the initials SA, A, N, D, SD to the right of each item. These initials represent: strongly agree, agree, neutral, disagree, and strongly disagree. Mark through the answer which best reflects the extent to which you agree with statements 7 through 12. Now locate the line of answers for question 7. Mark through the answer which best reflects your agreement with the following statements:

7. The business of choosing an occupation is very confusing and I don't know where to begin--strongly agree, agree, neutral, disagree, strongly disagree.
8. I would like to know much more about myself before I begin choosing an occupation--strongly agree, agree, neutral, disagree, strongly disagree.
9. I need to know much more about occupational opportunities and requirements--strongly agree, agree, neutral, disagree, strongly disagree.
10. I would like to know what one or two specific occupations are all about--strongly agree, agree, neutral, disagree, strongly disagree.
11. I have some ideas about what I'd like to do but I need information about the training or education required--strongly agree, agree, neutral, disagree, strongly disagree.

12. I need information about available training programs or colleges I might attend--strongly agree, agree, neutral, disagree, strongly disagree.

You have now completed the Vocational Guidance Questionnaire. Please pass your answer sheets forward and a proctor will collect them.

In two weeks we will be telephoning you to get a little more information relating to your SDS experience. At that time, we will be happy to answer any questions you may have about the SDS program and this project. Thank you for your cooperation.

STUDENT OPINION FORM

1.	SA	A	N	D	SD
2.	SA	A	N	D	SD
3.	SA	A	N	D	SD
4.	SA	A	N	D	SD
5.	SA	A	N	D	SD

6.

7.

8.

9.

10.

VOCATIONAL GUIDANCE ANSWER SHEET

1.

2.

3.	WS	MS	DR	DC	U
4.	IM	NW	NM	BG	NN
5.	VW	RW	FW	NW	NA

VOCATIONAL GUIDANCE ANSWER SHEET

6. Personality Types

I.	Investigative	E.	Enterprising
A.	Artistic	C.	Conventional
S.	Social	R.	Realistic

Occupations

___	Salesman	___	Chemist
___	Mechanic	___	Musician
___	Teacher	___	Accountant

7.	SA	A	N	D	SD
8.	SA	A	N	D	SD
9.	SA	A	N	D	SD
10.	SA	A	N	D	SD
11.	SA	A	N	D	SD
12.	SA	A	N	D	SD

APPENDIX N

Follow-up Questionnaire

(Vocational Guidance Questionnaire II)

VOCATIONAL GUIDANCE QUESTIONNAIRE II

1. Name all of the occupations you are considering right now.
2. During the past two weeks, have you spent more or less time than usual thinking about yourself and your occupational future? Much less time, less time, about the same, more time, much more time.
3. Answer the following questions by responding "yes" or "no." If you answer "yes," state "how many times."
   A. Within the past two weeks have you talked with other students about yourself and your career opportunities? If yes, how many times?
   B. Within the past two weeks have you talked with your parents about yourself and your career opportunities? If yes, how many times?
   C. Within the past two weeks have you read or sent for brochures or books on jobs or occupations? If yes, how many times?
   D. Within the past two weeks have you read or sent for brochures or catalogues for college or other training programs? If yes, how many times?
   E. Within the past two weeks, have you visited or made plans to visit colleges, training institutions or places of employment? If yes, how many times?

F. Within the past two weeks, have you watched any TV programs, seen exhibits, shows or radio programs with information relevant to occupations or colleges? If yes, how many times?

G. Within the past two weeks, have you made an appointment to see a vocational counselor? If yes, how many times?

4. Right now, what is your first occupational choice?

VOCATIONAL GUIDANCE QUESTIONNAIRE II

1.

2. MLT LT S MT MMT

3. A. Yes No #_____
   B. Yes No #_____
   C. Yes No #_____
   D. Yes No #_____
   E. Yes No #_____
   F. Yes No #_____
   G. Yes No #_____

4.

APPENDIX O

Self-Directed Search Summary Sheet

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SELF-DIRECTED SEARCH SUMMARY

STUDENT:

SDS SUMMARY CODE:

SDS SCORES FOR EACH PERSONALITY TYPE: R= I= A= S= E= C=

THE FOLLOWING INFORMATION IS BASED ON THE STUDENT'S SELF REPORT FOLLOWING COMPLETION OF THE SDS.

CURRENT OCCUPATIONAL CHOICE AND ITS SDS CODE:

OTHER OCCUPATIONS BEING CONSIDERED AND THEIR CORRESPONDING SDS CODE:

EXPRESSED SATISFACTION WITH CURRENT OCCUPATIONAL CHOICE:

EXPRESSED NEED TO TALK TO A COUNSELOR ABOUT VOCATIONAL CHOICE:

DEGREE TO WHICH STUDENT STATES HE/SHE UNDERSTANDS THE KINDS OF OCCUPATIONS SUITABLE TO HIS/HER OWN PERSONALITY:

APPENDIX P

Index of Similarity

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INDEX OF SIMILARITY

Zener and Schnuelle (1972) devised the following six level index of similarity. This scale was developed to provide an index of similarity between the SDS summary code and any other Holland code; i.e. code corresponding to an occupation.

(1) an index of 0 indicates the first letter of the SDS summary code is not included in the other code;

(2) an index of 1 indicates the first letter of the SDS summary code matches any letter in the other code;

(3) an index of 2 indicates the first and second letters of the SDS summary code match any two letters in the other code;

(4) an index of 3 indicates the first letter of the SDS summary code matches the first letter of the other code;

(5) an index of 4 indicates all three letters of the SDS summary code match the letters of the other code in any order;

(6) an index of 5 indicates the first and second letters of the SDS summary code match the first and second letters of the other code; and

(7) an index of 6 indicates the letters and order of the SDS summary code and the other code are exactly the same.

APPENDIX Q

Audiotape Occupational Interview Format--
questions asked of visually disabled persons
working in nonstereotypic careers

OCCUPATIONAL INTERVIEW FORMAT

(Nonstereotypic Occupations for the Visually Disabled)

Paul White--12/28/77

The following is a format for an interview between a visually disabled person employed in a nonstereotypic occupation and a staff interviewer from the Curricular-Career Information Service.

Interviewer: Hello, I'm (name of interviewer) of the Curricular-Career Information Service at Florida State University. The following interview with (Dr.), (Mr.), (Ms.) _____ (title and/or place of employment) has been produced as part of a U.S. Office of Education Career Education Program grant funded project. The purpose of this interview is to provide students who are visually disabled with accurate and up-to-date information concerning an occupation which might otherwise be considered unusual or difficult for a disabled person to pursue. This is part of a series of interviews which seeks to expose students to possible career alternatives other than those traditionally pursued by the visually disabled.

(Dr.), (Mr.), (Ms.)

1. Would you briefly describe what your present work is all about?

2. Where did you receive your college training? When did you graduate? What did you major and minor in?

3. Looking back to when you were a freshman, can you recall your initial career goals you had hoped to pursue?

4. To what extent if any did your visual disability affect your original goals?

5. To what extent did your disability affect your decision to enter the occupation you now have?

6. What work or volunteer experience would you recommend for a person who is planning a similar career? Are these experiences readily available to a visually disabled student?

7. What type of background or kind of courses would you recommend for students who want to pursue a career in _____?

8. What do you like best or what is it in your job that you find most satisfying? Least enjoyable?

9. How much pressure do you experience while performing on the job? Is it personal or day-by-day type of pressure?

10. On a weekly basis, what are the average amount of hours you work, is this the norm or does your disability require you to work longer hours than your sighted peers?

11. Can you evaluate future career opportunities for the visually disabled in your field? What advice can you give to visually disabled students who are interested in a career in _____?

12. Would you describe major disappointments or frustrations you have experienced during your career? What did you do to overcome these major setbacks?

13. What modification if any would an employer have to make before he or she could hire a visually disabled employee in your field?

14. What resistance if any did you encounter because of your visual disability from employers when you began your job search? How did you respond to their fears, questions, prejudices, etc.?

15. What resistance if any did you encounter because of your visual disability from counselors, teachers, parents, friends, etc. when you began to pursue your current occupation? How did you respond to their fears, questions, prejudices, etc.?

16. From your work experience in general, is there anything you might like to share with the young people who are still in school or about to graduate and enter their career choice?

Interviewer: (Dr.), (Mr.), (Ms.) _____, thank you very much for your time and the information you have shared with us.

APPENDIX R

Evaluation Plan

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EVALUATION PLAN

The purpose of this section is to present an evaluation plan for assessing the effectiveness of the fully developed career planning program for the blind in terms of the extent to which the project intervention alleviates specific problem causes, as measured through client change and process monitoring.

The efforts of this project are founded on the premise that visually disabled individuals can be helped through self-directed career planning materials.

Evidence has been collected that shows little opportunity exists for blind individuals to actively participate in career planning. The literature provides empirical and theoretical documentation of a need for self-directed career planning programs for the visually disabled. More specifically, self-directed programs should involve vocational exploration, self-assessment, and employability skills training. The intervention proposed would develop and implement a unified program of career planning for visually disabled individuals which could be replicated by providers of career counseling services at a variety of postsecondary educational institutions and elsewhere.

INFORMATION REQUIREMENTS:

This section will identify those questions felt most relevant to assessing whether client change has occurred and the extent to which the project has solved the defined problem. In addressing these issues, the project intervention must be replicable by providers of career counseling services at postsecondary educational institutions. In order to be replicated effectively, the following change requirements (independent variables) should form the basis of the proposed intervention:

1. Identification of intervention strategies which foster client change.

2. Development of unified career planning units of instructions and supportive materials to guide clients through the change process.

3. Documentation of the impact (outcomes) of clients having achieved the desired objectives.

4. Document the replicability of materials for use in career planning programs at other institutions.

In determining the extent to which the project intervention solved the defined problem in terms of observed client changes, a number of questions are identified. The evaluation of the impact of the CCIS grant project (A Self-Directed Career Planning Program for the Visually Disabled) will focus upon the following questions:

1. To what extent were the client objectives met: has the desired change in client behavior occurred?

2. Has the impact of the program been adequately documented and described to provide needed information to those considering its adoption?

3. Have the estimated developmental and operational costs been documented and described to provide needed information to those considering program adoption?

In order to respond to these questions, specific information and methods of data collection are required. The following table represents specific information required in responding to the questions listed above and the criteria to be listed in determining operation effectiveness in regard to each question.

TABLE 1—INFORMATION REQUIREMENTS

EVALUATION QUESTIONS:	INFORMATION REQUIREMENTS:	DECISION CRITERIA
1. Were client and program objectives met?	Pre-post-performance indicators in career planning: Tailored (CRT) measures	Demonstrated significant both statistical and practical
2. Documentation of project impact?	Appropriate dependent measures over both objective and subjective variations. Follow-up surveys two months after the intervention	Meta-Evaluation review by two external evaluators: to include range, sensitivity and appropriateness of measures. Perceptions of worth by clientele
3. Documentation of developmental and operational cost?	Cost documentation and varification: Developmental cost; Inheritance cost; Operational cost	Confirmation by budget accountant for documentation of cost analysis

DESIGN AND PROCEDURE:

The basic evaluation questions of this project concern program replicability, client change during the intervention and favorable outcomes after the intervention. The criteria to be used in determining the effectiveness of the intervention during the treatment processes will be based upon criterion-referenced instruments developed from the program components. The rationale for this type of assessment is based on the existence of the following conditions:

1. Clients enter below the terminal performance level of each component.

2. Clients achieve terminal performance level after completion of each component intervention.

3. Clients entered each component having met any prerequisite requirements.

The first two conditions are addressed through pre-post-test analysis. The pre-test will document client deficiency in target behaviors and the post-assessment will document level of criterion attainment.

Critical to the demonstration of project success are two types of assessments:

1. Pre-post-assessment to determine attainment level of client objectives.

2. Observation, surveys, and other informal assessments to determine extent of attainment of program goals.

A set of procedures will be presented for collecting and analyzing the data relating to the assessments.

DESIGN:

The proposed evaluation design, a single group pre-post-test contrast was incorporated to measure effects during the treatment. In the pre-post comparisons, student change will be assessed for each selected component (module) in the program. Assessment results prior and subsequent to the component intervention will be summarized and analyzed. Data summarization and data analysis will be done by computer. Pre- and post-testing of career planning components will take place during the field testing in June, 1978. Field testing will involve visually disabled high school seniors and college students at select postsecondary institutions in the state of Florida. Each individual will be tested only on those program components he/she selects for completion. Through the evaluation plan and procedures, data will be collected and interpreted in arriving at an analysis of program impact. The analysis of impact will also reflect the success of the project in meeting the following requirement:

The unified career planning program will be adequately documented in terms of impact (outcomes), developmental procedures, and cost to provide needed information to those considering program adoption.

Interpretation of the data collected in the summative evaluation of project impact must include the following determinations:

1. The extent to which the client objectives were met.

2. The statistical and practical significance of client change.

3. The generalizability of findings to other postsecondary institutional settings having similar client populations.

4. The replicability of the development and implementation of the program intervention, and

5. An assessment of outcomes as a result of the acquisition of desired objectives.

The design and procedures presented in this section are planned to address these concerns in the most reasonable manner possible.

INSTRUMENTATION (dependent variables):

Pre- and post-testing will consist of administration of criterion-referenced instruments. Separate instruments will be developed for each program component (module). Clients will be administered pre- and post-tests only on those components selected for completion. These instruments will be validated (content validity and reliability statements will be reported) for use by potential adopters of the program.

DATA CONTROL/VERIFICATION:

All protocols will be kept in the project office. A sample of 5% of all protocols are to be rescored; if any error is found, all protocols of that instrument will be rescored. Also, a 5% sample of data conversions and computations will be checked by an independent measurement specialist. Interpretations of the data will be reviewed by project staff and a technical review staff to check for logic of conclusions.

QUESTIONNAIRE/ATTITUDE DATA:

A Student Evaluation Form surveys attitudes regarding the component intervention and overall project impact. This instrument will be developed by the project staff, pilot tested and revised prior to intervention use. The instrument will be administered twice, first at the termination of the intervention and second, two months later.

DATA ANALYSIS:

Pre-post differences will be calculated for each component. Appropriate statistical analysis (t test for each component) will be applied to determine levels of statistical significance between pre-post-test contrast. Questionnaire/attitude results will be analyzed descriptively (percentages, means, and standard deviations).

APPENDIX S

Field Test Instruments

NAME:_____ DATE:_____

AGE:_____ SEX:_____ HIGHEST GRADE COMPLETED:_____

USER EVALUATION FORM

INSTRUCTIONS TO BE READ BY PROCTOR:

I am going to read several statements which address critical aspects of the Career Planning Program. There are four possible responses for each statement. They are:

strongly agree
agree
disagree
strongly disagree

Listen closely while I read each statement. Then tell me the response which corresponds closest to your true feelings and/or experience.

1.	Locating career planning materials was quite easy.	SA	A	D	SD
2.	Career planning materials were outdated and of little use.	SA	A	D	SD
3.	Overall, I was very pleased with the services offered by the career planning program.	SA	A	D	SD
4.	The volume of career planning materials overwhelmed me.	SA	A	D	SD
5.	Obtaining relevant information from materials was too time-consuming.	SA	A	D	SD
6.	The career planning materials were helpful.	SA	A	D	SD
7.	I would recommend the career planning program to a friend who wanted career planning information.	SA	A	D	SD
8.	Do you have any additional comments you would like to add?				

OBSERVER NAME:_____ DATE:_____

CLIENT NAME:_____ TIME (in):_____ (Out):_____

CAREER PLANNING PROGRAM OBSERVER RATING SHEET

	YES	NO
I. Student completed Module IV-z.....		
A. Able to identify appropriate references or sources.....		
B. Able to physically locate desired materials.....		
C. Required proctor assistance for: _____ _____		
II. Student completed Module II-z.....		
A. Able to sequence steps in the career decision-making process (see answer sheet). Number correct = _____		
B. Able to identify three common misconceptions about career planning. Number correct = _____		
C. Required proctor assistance for: _____ _____		
III. Able to select appropriate modules for desired areas of further development.....		
A. Required proctor assistance for: _____ _____		

	Yes	No
IV. Completed the SDS.....		
A. Able to record responses on tactile board.....		
B. Able to score responses on tactile board.....		
C. Able to determine correct Summary Code from SDS responses.....		
D. Able to match SDS Summary Code with congruent occupations.....		
E. Required proctor assistance for: _____ _____		
V. Completed Module VI-z, "Affirmative Action".....		
A. Required proctor assistance for: _____ _____		
VI. Completed Module IX-z, "Your Job Campaign".....		
A. Able to compose rough draft of resume.....		
B. Able to compose rough draft of employment application letter.....		
C. Able to identify appropriate interview behaviors..... Number correct = _____		
D. Required proctor assistance for: _____ _____		

VII. Student used the following modules:

Module 1 _____
Module 2 _____
Module 3 _____
Module 4 _____
Module 5 _____
Module 6 _____
Module 7 _____
Module 8 _____
Module 9 _____
Module 10 _____

NAME:_____ DATE:_____

PRE-TEST FOR MODULE II-z

1. The following list contains important steps in the career decision-making process. Indicate the proper sequence of these steps by writing a number 1 in the space to the left of the first step, 2 to the left of the second step, and so on.

   __Predict the feasibility of possible alternatives.

   __Prioritize possible alternatives.

   __State the questions or problems requiring a decision.

   __Compare the compatibility of your values (people, ideas, things) with possible alternatives.

   __Formulate alternative courses of action (jobs, majors, etc.).

2. The following list contains three common misconceptions about career planning. Draw a line through the three common misconceptions.

   1. Vocational choice is an event rather than a process.
   2. There is multipotentiality in both majors and careers.
   3. Accident plays little role in vocational choice and development.
   4. Vocational choice is largely a compromise.
   5. The typical employee, even the professional, works in a large organization.
   6. Vocational interest tests are usually the greatest help in vocational choice.

NAME:_____ DATE:_____

POSTTEST FOR MODULE II-z

1. The following list contains important steps in the career decision-making process. Indicate the proper sequence of these steps by writing a number 1 in the space to the left of the first step, 2 to the left of the second step, and so on.

   __Predict the feasibility of possible alternatives.

   __Prioritize possible alternatives.

   __State the questions or problems requiring a decision.

   __Compare the compatibility of your values (people, ideas, things) with possible alternatives.

   __Formulate alternative courses of action (jobs, majors, etc.).

2. The following list contains three common misconceptions about career planning. Draw a line through the three common misconceptions.

   1. Vocational choice is an event rather than a process.
   2. There is multipotentiality in both majors and careers.
   3. Accident plays little role in vocational choice and development.
   4. Vocational choice is largely a compromise.
   5. The typical employee, even the professional, works in a large organization.
   6. Vocational interest tests are usually the greatest help in vocational choice.

NAME:_____ DATE:_____

PRE-TEST FOR MODULE IX-z

1. The following list contains suggested pre-interview activities. Place a checkmark in the space provided to the left of the appropriate pre-interview activities.

__Research prospective employers.

__Prepare questions to ask prospective employers.

__Dress according to the sex of the interviewer.

__Review your career objectives.

__Prepare the minimum salary offer you are willing to Accept.

__Have clear in mind a rationale of why you would like to be employed by the agency.

2. The following list contains suggested interview behaviors. Place a checkmark in the space provided to the left of the appropriate interview behaviors.

__Have a script of what you are going to say memorized.

__Allow the interviewer to express himself and listen attentatively.

__Dwell on the positive.

__Follow up on the interview.

__Emphasize your interest in salary and benefits.

NAME: _____ DATE: _____

POSTTEST FOR MODULE IX-z

1. The following list contains suggested pre-interview activities. Place a checkmark in the space provided to the left of the appropriate pre-interview activities.

__Research prospective employers.

__Prepare questions to ask prospective employers.

__Dress according to the sex of the interviewer.

__Review your career objectives.

__Prepare the minimum salary offer you are willing to accept.

__Have clear in mind a rationale why you would like to be employed by the agency.

2. The following list contains suggested interview behaviors. Place a checkmark in the space provided to the left of the appropriate interview behaviors.

__Have a script of what you are going to say memorized.

__Allow the interviewer to express himself and listen attentatively.

__Dwell on the positive.

__Follow up on the interview.

__Emphasize your interest in salary and benefits.

APPENDIX T

User Evaluation Results

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NAME:_____ DATE:_____

AGE:_____ SEX:_____ HIGHEST GRADE COMPLETED: _____

USER EVALUATION FORM

INSTRUCTIONS TO BE READ BY PROCTOR:

I am going to read several statements which address critical aspects of the Career Planning Program. There are four possible responses for each statement. They are:

strongly agree
agree
disagree
strongly disagree

Listen closely while I read each statement. Then tell me the response which corresponds closest to your true feelings and/or experience.

	SA	A	D	SD
1. Locating career planning materials was quite easy.	12%	69%	19%	0
2. Career planning materials were outdated and of little use.	0	25%	69%	6%
3. Overall, I was very pleased with the services offered by the career planning program.	19%	63%	18%	0
4. The volume of career planning materials overwhelmed me.	6%	44%	50%	0
5. Obtaining relevant information from materials was too time-consuming.	0	31%	69%	0
6. The career planning materials were helpful.	13%	75%	12%	0
7. I would recommend the career planning program to a friend who wanted career planning information.	50%	44%	6%	0

8. Do you have any additional comments you would like to add?

APPENDIX U

Impact Certification Results

222

RESPONSES TO
IMPACT CERTIFICATION FORM

NAME: _____ DATE: _____

POSITION: _____

Please indicate your agreement with the following statements by placing a check (✓) in the appropriate box.

SA = strongly agree
A = agree
D = disagree
SD = strongly disagree

NUMBER OF REVIEWERS SELECTING EACH RESPONSE

STATEMENTS:	SA	A	D	SD
1. The CCIS career planning program enabled blind individuals to actively participate in career planning.	1	3		
2. Participants seemed interested in the CCIS career planning materials.		4		
3. Exposure to the CCIS career planning program prompted further career planning behavior (use of additional career planning materials and resources).	1	3		
4. The materials appear readily usable by the intended user.		4		
5. The instructional strategies used in the materials appear to be thorough and potentially effective in teaching the intended skills and knowledge to the target audience.		2	1	

For the following items please indicate the acceptability or unacceptability of the CCIS career planning materials.

A = acceptable
U = unacceptable
NA = not applicable

ITEMS:	A	U	NA
1. Overall appearance.	3		1
2. Organization.	4		
3. Potential effectiveness.	4		
4. Potential usefulness of content.	4		
5. Appropriateness of content for intended audience.	2		
6. Appropriateness of reading level for intended audience.	2	2	
7. Estimated ease of use.	4		
8. Quality of writing.	3		
9. Quantity of content.	3		
10. Use of directions and instructions within the materials.	4		

Based upon your experience working with visually disabled, please respond to the following questions by checking the appropriate box.

QUESTIONS:	YES	NO	UNSURE
1. Is there reason to believe that there is a need for this program (i.e., that visually disabled persons need self-directed career planning opportunities)?	4		
2. Do the materials appear to be packaged in a form that is easily used by adopters with a minimum of training and assistance?	3		1
3. Do you think that other professional persons working with the visually disabled would be interested in using this program?	4		

Please respond to the following questions:

1. Would you use the CCIS career planning program (or recommend its use) with visually disabled persons desiring career planning assistance?

   YES: 4 NO: 0

2. Compared to usually available career planning materials for the visually disabled, how would you rate the CCIS career planning program overall?

   much better 0
   better 1
   worse 0
   much worse 0
   unable to compare 2

3. The CCIS career planning materials as a whole are:

   acceptable 4
   unacceptable 0

4. How long did you spend using the CCIS career planning materials?

   2 months (average)

5. What side benefits of the program do you anticipate (i.e., ability of clients to access desired information reduces amount of time counselor must spend seeking it for them).

"Helps give some direction." "Helps them become aware of additional interest areas that may serve not only as vocational possibilities but ones that provide a vocational interest too." "Initiates interest in students leading to motivation to obtain more information--also provides some directions for information-seeking." "Good counseling tool." "Directs student planning."

6. How easy would it be for adopters to implement the CCIS career planning program in educational/rehabilitation settings similar to those in CCIS and Daytona Beach?

"Difficulty occasionally because of educational levle and communication skills (Braille)." "Must have more time than 2 months." "Must be done on a 1-1 basis--not group--materials not effective unless accompanied by counseling." "Could be implemented into a career awareness program rather easily."

7. List below any characteristics of the CCIS career planning materials which you do/do not recommend for intended use.

"Do not recommend Module II--needs to be modified for those who are not college bound." "Job descriptions not detailed enough." "Confusion regarding what student wants to do vs. what they can do. Change tactile board a little. Tapes need more depth. Certain jobs are not realistic and could be omitted. Other jobs could be added, esp. those which visually handicapped are now doing." "Some material may be too advanced for some clients, e.g. vocabulary." "This material is a good resource for vocational counselors in working with their clients."

APPENDIX V

Letter from John L. Holland

THE JOHNS HOPKINS UNIVERSITY • BALTIMORE, MARYLAND 21218

DEPARTMENT OF
SOCIAL RELATIONS
(301) 338-7626

March 27, 1978

Dr. Robert Reardon
Curricular-Career Information Service
Florida State University
Tallahassee, Florida 32306

Dear Bob:

My letter is to provide a brief written evaluation of the SDS for the Visually Disabled Student and of the evaluation plan itself. My evaluation is brief because you and your staff have done a superb job.

The adaptation of the SDS itself looked fine to me. I have no critical comment. I am glad that you decided not to change any items because your data then becomes comparable with all other data about the SDS.

I do have some ideas about the evaluation of the SDS when it is used by the blind. If at all possible, it is desirable to get the N up as much as possible. Also, we need some additional criteria that are concerned with outcomes such as the number and variety of vocational alternatives after treatment. You have covered the process criteria very well.

I am pleased that I can find so little that I can contribute or criticize.

Sincerely yours,

John L. Holland
Professor

JLH/ags

APPENDIX W

Letter from Bill Brown

DIVISION OF BLIND SERVICES

Department of Education
State of Florida

RALPH D. TURLINGTON
COMMISSIONER

Rehabilitation Center for the Blind
1111 Willis Avenue
Daytona Beach, Florida 32014
Tel: (904) 252-4722

DONALD H. WEDEWER
DIRECTOR

August 24, 1978

Sandy Barker
CCIS
114 Bryan Hall
Florida State University
Tallahassee, Florida 32306

Sandy,

Enclosed is the data you requested concerning the CCIS materials as field tested here at the Center. Overall, we found the materials very useful.

We weren't able to complete all the testing we had planned. The nature of the Center is such that students are continually arriving and leaving, and it is difficult to expose all the appropriate students to the materials in six weeks. Generally, we have three to four months in which to cover their instructional program. However, we did try to expose as many students as possible to various modules.

We will be sending a final report at a later date.

Thanks for the opportunity for these materials. We anticipate that they will be a very needed addition to the career education program here at the Center. Hope we have been of assistance.

Sincerely,

Bill Brown
Instructor

BB/mcw

"AN EQUAL OPPORTUNITY EMPLOYER"

APPENDIX X

Goals and Objectives

LEARNER GOALS AND OBJECTIVES

Goal 1: The visually disabled student will be able to obtain desired career information without requiring assistance of a reader or counselor.

Objective 1: Given their choice of desired career materials, the student will identify appropriate references or sources in CCIS.

Intervention Strategy: The student will complete CCIS Module IV-z, "Information Sources".

Objective 2: Given the tactile map of CCIS, the student will identify the location of desired career materials.

Intervention Strategy: CCIS proctors will show students how to use the tactile map.

Objective 3: Given the location of desired career materials, the student will physically locate them in CCIS.

Intervention Strategy: The student will be able to explore on his own. A CCIS proctor will be available if assistance is requested.

Goal 2: The visually disabled student will be able to comprehend a career decision-making process.

Objective 1: Given a list of important steps in the career decision-making process, the student will arrange them in sequential order.

Intervention Strategy: The student will complete CCIS Module II-z, "Guidelines for Career Decision-Making".

Objective 2: Given a list of plausible misconceptions about career planning, the student will identify three.

Intervention Strategy: The student will complete Module II-z, "Guidelines for Career Decision-Making".

Goal 3: The visually disabled student will be able to apply a career decision-making model to his/her personalized career planning.

Objective 1: Given a list of knowledge and skills necessary to implement the career decision-making model, the student will identify those areas they would like to develop further.

Intervention Strategy: The student will engage in self-appraisal.

Objective 2: Given the self-appraisal, the student will identify the modules in CCIS which will address those deficiencies.

Intervention Strategy: The student will be given an annotated description of CCIS modules.

Goal 4: The visually disabled student will be able to integrate knowledge of self and occupations.

Objective 1: Given the visually disabled version of the SDS, the student will record and score all responses on the inventory.

Intervention Strategy: The instructions for use are on audiotape. Proctors will be available if assistance is requested.

Objective 2: Given the results of the inventory, the student will list his/her Summary Code with a brailler or pencil, and match it to corresponding personality patterns.

Intervention Strategy: The student will read The Occupations Finder and read or listen to Understanding Yourself and Your Career.

Objective 3: Given his/her SDS Summary Code, the student will list at least three occupations congruent with his/her SDS code by means of a brailler or pen or pencil.

Intervention Strategy: The student will explore the Occupations Finder.

Goal 5: The visually disabled student will be able to apply appropriate employment-seeking skills.

Objective 1: Given a list of affirmative action regulations, the visually disabled student will identify those regulations which relate to his/her job campaign.

Intervention Strategy: The student will complete Module VII-z, "Affirmative Action".

Objective 2: Given a resume writing guide containing five necessary components of a resume, the student will compose a rough draft of his/her resume.

Intervention Strategy: The student will complete Module IX-z, "Your Job Campaign".

Objective 3: Given a letter writing guide containing the four necessary elements of an employment application letter, the student will compose a rough draft of the employment application letter.

Intervention Strategy: The student will complete CCIS Module IX-z, "Your Job Campaign".

Objective 4: Given a list of plausible interview behaviors, the student will identify the appropriate behaviors.

Intervention Strategy: The student will complete Module IX-z, "Your Job Campaign".

Program Goals:

Mission Statement: To facilitate the development of self-directed career planning needs of visually disabled college students.

Goal 6: The program will provide the visually disabled student the opportunity to utilize CCIS resources.

Indicators:

1. Number and kinds of resources transcribed for use by visually disabled students.
2. Description of materials adapted for visually disabled students.
3. Number of return visits per visually disabled student.
4. Number of advertising activities completed.
5. Number of developed materials used by visually disabled students.
6. Number and kinds of resources used.
7. Number of students receiving criterion level on learner goals and objectives.

Goal 7: The program will provide an in-service training component.

Indicators:

1. Training goals and objectives.
2. Description of training program process.

3. Number of training meetings.

4. Number of student counselors achieving proficiency.

Goal 8: The program will assist visually disabled students in developing career decision-making skills.

Indicators:

1. Number of hours spent in CCIS.

2. Number and kinds of resources used by visually disabled students.

3. Number of return visits per visually disabled student.

4. Documentation of user satisfaction.

5. Endorsement of program by constituents and professionals.

Goal 9: The program will demonstrate a process through which a service can be developed to accommodate career needs of visually disabled students.

Indicators:

1. Documentation of visually disabled student needs.

2. Formulation of learner goals and objectives.

3. Validation of goals and objectives.

4. Design of learning processes.

5. Production of materials.

6. Pilot test materials.

7. Field test materials.

8. Implementation of materials.

9. Evaluation of learner outcomes.

10. Determination of whether program needs were met.

Goal 10: The program will document conditions under which the program will be replicated effectively.

Indicators:

1. Production of a user's manual.

2. Documentation of program constraints.

3. Documentation of evaluation activities.
4. Documentation of program development process.
5. Documentation of implementation process.
6. Documentation of unintended outcomes.

APPENDIX Y

Field Test Report

DIVISION OF BLIND SERVICES

Department of Education
State of Florida

RALPH D. TURLINGTON
COMMISSIONER

Rehabilitation Center for the Blind
1111 Willis Avenue
Daytona Beach, Florida 32014
Tel: (904) 252-4722

DONALD H. WEDEWER
DIRECTOR

September 19, 1978

Mr. Bob Reardon
CCIS
114 Bryan Hall
Florida State University
Tallahassee, Florida 32306

Dear Mr. Reardon:

SUBJECT: FSU PROJECT SUMMARY

At the request of Florida State University's CCIS Program, the counseling department at the Daytona Beach Rehabilitation Center for the Blind has agreed to take part in a testing and evaluation project of the CCIS Program. Seven modules of the FSU system (2, 3, 5, 6, 7, 8, and 9) were used in the evaluation. The program's original purpose was to aid college level students in becoming more aware of vocational opportunities and interests. Testing at the Rehabilitation Center included individuals from a wide variation of backgrounds and educational levels. Comments from those persons involved in the project reflect overall satisfaction with the project. Results from testing as well as client comments have enabled the staff to better evaluate the usefulness of the curriculum for our career education program.

Participants:

Due to the clientele served by the Rehabilitation Center, participants in this project are probably more varied than those participating at Florida State University. Ages ranged from the late teens to late 50s. Some individuals had little formal education while others possessed a college degree. Likewise, functional abilities varied ranging from mildly retarded to intelligence in the superior range. In addition, some participants had little if any work experience while others had an extensive work history.

In general, the varied educational, vocational and functional abilities of client participants necessitated adaptations in the presentation of the program. Greater staff involvement was required to assist those taking part in the project who did not yet have braille skills and were unable to read large print. Therefore, tables, and in some cases instructions, needed to be read and explained several times. However, on the whole, client responses revealed satisfaction with the program and a desire to continue with it. It was felt both by staff and clients that additional time to take part in the program would have been a great help.

"AN EQUAL OPPORTUNITY EMPLOYER"

Staff Observation:

It is felt that utilization of the CCIS Program or an adaptation of it is potentially a valuable tool in rehabilitation. Although the CCIS Program enables clients to explore various possibilities and obtain desired job skills, perhaps its chief advantage is as a counseling tool. Results of SDS testing and use of modules have been valuable in terms of exploring personal and vocational awareness; therefore, as part of the career education program at the Rehabilitation Center, establishment of a career center is being planned to include materials from the CCIS Program as well as other sources.

Although the CCIS Program is potentially a valuable instrument in career education, a number of weaknesses have been noted, especially when used with our client population. Perhaps the most frequent criticism of the program made by students at the Center refers to the designed level of the program. The SDS test seems to presuppose that students are functioning at the college level in terms of education and experiences. Likewise, much of the information contained in the remaining modules is aimed at the college student. Most professions which are discussed require a good deal of training. Participants in the project stated that not enough job categories are represented, especially those involving less specific training. Likewise, it was felt that many of the jobs which were included tend to be rather unrealistic. Expansion of module 5 to include a greater variety and number of occupations is suggested. In this regard, students also felt that descriptions of specific occupations need to be more detailed including the necessary skills and responsibilities for each job.

A number of students had comments and criticism specifically about the self-directed search. A number of students objected to its wording and design stating that it was intended for persons with a higher level of education and experiences. Likewise, students felt that the test was designed for sighted individuals. Many of the choices appeared to be rather unrealistic to visually impaired clients. On the whole, having the test and its instruction on tape was appreciated; however, some students did not have good listening skills. In terms of the board design, comments were received indicating that the top and bottom sections of the board should be interchanged. Furthermore, the durability of the braille symbols on the board appeared to be of poor quality. Perhaps a heavier tape should be used in the future to label pegs and areas of the board.

In summary, the program stimulated interest in careers among the students and this alone would prove very useful. Additionally, it provided exposure to a number of occupations which many students had not previously been aware of. Tapes which contain interviews with blind individuals actually working (providing they are specific enough), information on employability skills (interviewing, resumes, applications), and the Self-Directed Search were particularly useful.

Sincerely,

Douglas E. Hall
William F. Brown, Jr.
Instructors

/dl